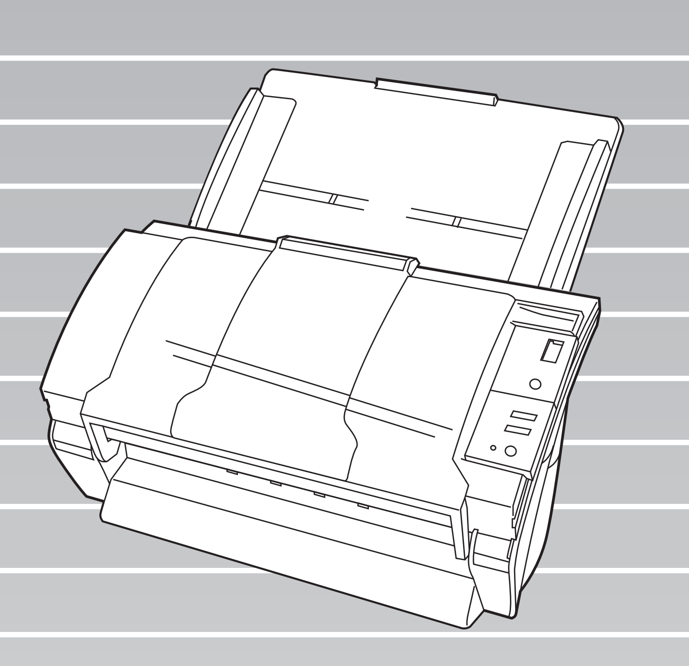
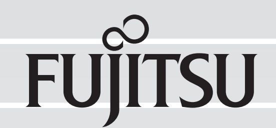


P3PC-1352-02ENZ0

fi-5530C Image Scanner
Operator's Guide





CONTENTS

INTRODUCTION

Thank you for purchasing the fi-5530C Duplex Color Scanner.
This document describes how to handle fi-5530C and basic operation methods. Before you start using fi-5530C be sure to thoroughly read this manual to ensure correct use.

■Regulatory Information

FCC declaration

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is located.
- Consult your dealer or an experienced radio/TV technician.

FCC warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE	The use of a shielded interface cable is required to comply with the Class B limits of Part 15 of FCC rules. The length of the AC cable must be 3 meters (10 feet) or less.

Canadian DOC Regulations

This digital apparatus does not exceed the Class B limit for radio noise emissions from digital apparatus set out in the Radio interference Regulations of the Canadian Department of Communications.
This Class B digital apparatus complies with Canadian ICES-003.

Le présent appareil numérique n'émet pas de parasites radioélectriques dépassant les limites applicables aux appareils numériques de la classe B et prescrites dans le Règlement sur le brouillage radioélectrique dictées par le Ministère des Communications du Canada.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Bescheimigung des Herstellers / Importeurs

Für den fi-5530C wird folgendes bescheinigt:

- In Übereinsstimmung mit den Bestimmungen der EN45014(CE) funkentstört
- Maschinenlärminformationsverordnung 3.GPSGV: Der höchste Schalldruckpegel beträgt 70 dB (A) oder weniger, gemäß EN ISO 7779.

International ENERGY STAR® Program

As an ENERGY STAR® Partner, PFU LIMITED has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

The International ENERGY STAR® Office Equipment Program is an international program that promotes energy saving through the penetration of energy efficient computers and other office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, monitors, printers, facsimiles, copiers, scanners, and multifunction devices. Their standards and logos are uniform among participating nations.

■Note, Liability

READ ALL OF THIS MANUAL CAREFULLY BEFORE USING THIS PRODUCT. IF THIS PRODUCT IS NOT USED CORRECTLY, UNEXPECTED INJURY MAY BE CAUSED TO USERS OR BYSTANDERS.

Also, keep this manual in a safe place so that it can be easily referred to during use of this product.

While all efforts have been made to ensure the accuracy of all information in this manual, PFU assumes no liability to any party for any damage caused by errors or omissions or by statements of any kind in this manual, its updates or supplements, whether such errors are omissions or statements resulting from negligence, accidents, or any other cause. PFU further assumes no liability arising from the application or use of any product or system described herein; nor any liability for incidental or consequential damages arising from the use of this manual. PFU disclaims all warranties regarding the information contained herein, whether expressed, implied, or statutory.

Use in High-safety Applications

This product has been designed and manufactured on the assumption that it will be used in office, personal, domestic, regular industrial, and general-purpose applications. It has not been designed and manufactured for use in applications (simply called "high-safety applications" from here on) that directly involve danger to life and health when a high degree of safety is required, for example, in the control of nuclear reactions at nuclear power facilities, automatic flight control of aircraft, air traffic control, operation control in mass-transport systems, medical equipment for sustaining life, and missile firing control in weapons systems, and when provisionally the safety in question is not ensured. The user should use this product with adopting measures for ensuring safety in such high-safety applications. PFU LIMITED assumes no liability whatsoever for damages arising from use of this product by the user in high-safety applications, and for any claims or compensation for damages by the user or a third party.

About the use of mercury

	Lamp(s) inside this product contain mercury and must be recycled or disposed of according to local, state, or federal laws.

To avoid unexpected injuries;

- Do not put the substance contained in the lamp in your mouth as it has mercury.
- Do not breathe the chemical liquid contained in the scanner lamps.
- Do not incinerate, crush, or shred the lamps or scanner parts.

Trademarks

Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation in the United States and/or other countries.
ISIS and QuickScan are trademarks or registered trademarks of EMC Corporation in the United States.
Adobe, the Adobe logo, and Acrobat are either registered trademarks of Adobe Systems Incorporated in the United States and/or other countries.
Other product names are the trademarks or registered trademarks of the respective companies.

How Trademarks Are Indicated In This Manual

References to operating systems (OS) are indicated as follows:

Windows 95	Microsoft® Windows® 95 operating system
Windows 98	Microsoft® Windows® 98 operating system.
Windows Me	Microsoft® Windows® Millennium Edition operating system.
WindowsNT 4.0	Microsoft® Windows NT® 4.0 Server operating system, Microsoft® Windows NT® 4.0 Workstation operating system.
Windows 2000	Microsoft® Windows® 2000 Professional operating system.
Windows XP	Microsoft® Windows® XP Professional operating system, Microsoft® Windows® XP Home Edition operating system.

Where there is no distinction between the different versions of the above operating system, the general term "Windows " is used.

Adobe Acrobat	Adobe® Acrobat®

All the descriptions in this manual assume the usage of Adobe Acrobat bundled with this product. However, Adobe Acrobat may be upgraded without notice. If the descriptions differ from the screens actually displayed, refer to the Acrobat's "Help".

Manufacturer

PFU LIMITED

International Sales Dept., Imaging Business Division, Products Group
Solid Square East Tower, 580 Horikawa-cho, Saiwai-ku, Kawasaki-shi Kanagawa 212-8563, Japan
Phone : (81-44) 540-4538

About Maintenance

The user must not perform repairs on this scanner.
Contact the store where you purchased the scanner or an authorized FUJITSU Image Scanner service provider to make repairs to this product.

Warning Indications Used In This Manual



This indication alerts operators to an operation that, if not strictly observed, may result in severe injury or death.



This indication alerts operators to an operation that, if not strictly observed, may result in safety hazards to personnel or damage to equipment.

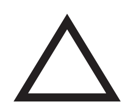
Symbols Used In This Manual



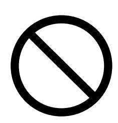
This symbol alerts operators to particularly important information. Be sure to read this information.



This symbol alerts operators to helpful advice regarding operation.



A TRIANGLE symbol indicates that special care and attention is required. The drawing inside the triangle shows the specific caution.



A CIRCLE with a diagonal line inside shows action which users may not perform.
The drawing inside or under the circle shows the specific action that is not allowed.



Outline characters on a colored background show instructions users should follow.
It may also include the drawing that shows the specific instruction.

Warning Label



The glass surface inside the ADF becomes hot during the operation. Be careful not to touch the glass surface inside the ADF.



Do NOT remove from the scanner, stain or scratch the warning labels.

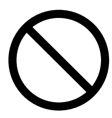
Screen Examples In This Manual

The screen examples in this manual are subject to change without notice in the interest of product improvement. If the actual displayed screen differs from the screen examples in this manual, operate by following the actual displayed screen while referring to the User's Manual of the scanner application you are using.
The screenshots in this manual were captured from FUJITSU TWAIN32 scanner driver, ScandAll 21 Image Capturing Utility Software, FUJITSU ISIS scanner driver, QuickScan Pro™ image capturing software and Adobe® Acrobat®.

■Safety Precautions

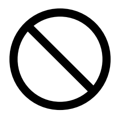


Do not damage the AC cable.



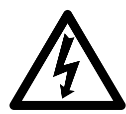
A damaged AC cable may cause fire or electric shock. Do not place heavy objects on AC cables, or pull, bend, twist, heat, damage or modify AC cables.
Do not use damaged AC cables or power plugs, or install any cables or power plugs to loose wall sockets.

Use only specified AC cables and connector cables



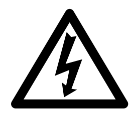
Use only specified AC cables and connector cables. Failure to use the correct cables might cause electric shock and/or equipment failure.
Please don't use the AC cable provided with this scanner for other devices, since this might cause equipment failure and other troubles or an electric shock.

Use this scanner only at the indicated power voltage. Do not connect to multiple-power strips.



Use this scanner only at the indicated power voltage and current. Improper power voltage and current might cause fire or electric shock. Do not connect to multiple-power strips.

Do not touch the AC cable with wet hands.



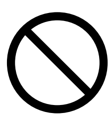
Do not touch the power plug with wet hands. Doing so might cause electric shock.

Wipe any dust from the power plug.



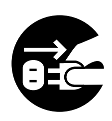
Wipe off any dust from metal parts on the power plug or metal fittings with a soft, dry cloth. Accumulated dust might cause fire or electric shock.

Do not install the device in locations that has oil smoke, steam, humidity, and dust.



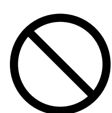
Do not install the scanner in locations subject to oil smoke, steam, humidity, and dust. Doing so might cause a fire or electric shock.

Turn the scanner OFF if it is damaged.

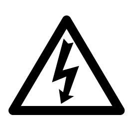


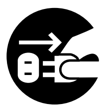
If the scanner is damaged for any reason, disconnect immediately the power plug in order to turn out the scanner. Contact the store where you purchased the scanner.

Do not put liquids inside the scanner.



Do not insert or drop metal objects in to the scanner. Do not scan wet documents or documents with paper clips or staples. Do not splash or allow the scanner to get wet.





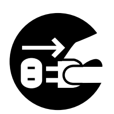
If foreign objects (water, small metal objects, liquids, etc.) get inside the scanner, immediately turn off the scanner and disconnect the power plug from the power outlet, then contact the store where you bought the scanner or the Maintenance Service Center. Pay particular attention to this warning in households where there are small children.

Do not touch the inside of the scanner unless necessary.



Do not take apart or modify the scanner. The inside of the scanner contains high-voltage components. Touching these components might cause fire or electric shock.

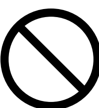
Do not use the scanner if there is a strange odor.



If you detect excessive heat coming from the device or detect other problems such as smoke, strange smells or noises, disconnect immediately the power plug in order to turn out the scanner. Make sure that any smoke coming from it has stopped, before contacting the store where you bought the scanner or an authorized FUJITSU scanner service provider.

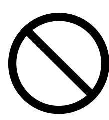


Do not install the scanner on unstable surfaces.

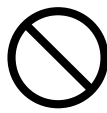
Make sure that the scanner is installed on a flat, level surface and that none of its parts extend beyond the surface top, such as a desk or table. Do not install the scanner on unstable surfaces. Install the scanner on a level surface that is free of vibration to prevent it from falling.
Install the scanner on a strong surface that will support the weight of the scanner and other devices.

Do not block the ventilation ports.



Do not block the ventilation ports. Blocking the ventilation ports generates heat inside of scanner, which may results in fire or scanner failure.

Do not place heavy objects or stand on top of the scanner.



Do not place heavy objects on the scanner or use the scanner's surface top to perform other work. Improper installation might cause injuries and equipment failure.

Firmly insert the power plug.



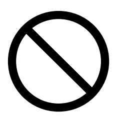
Firmly insert the power plug as far it can go into the power outlet.

Avoid any contact when scanner is in use.



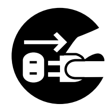
Avoid touching any scanner mechanism during scanning since this may cause injuries.

Do not use the scanner immediately after moving it from a cold place into a warm room.



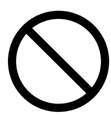
Do not use the device immediately after moving it from a cold place into a warm room. This may cause condensation, which might lead to scanning errors. Let the device dry about one or two hours before you use it.

Before moving the scanner, disconnect the power plug from the power outlet.



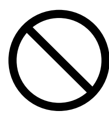
Do not move the scanner with the power and interface cables connected as this might damage the cables, causing fire, electric shock or injuries. Before moving the scanner, be sure to disconnect the power plug from the power outlet, and all other data cables. Make sure that the floor is free of any obstruction.

Protect the scanner from static electricity.



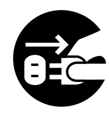
Install the scanner away from strong magnetic fields and other sources of electronic noise. Also, protect the scanner from any static electricity as this might cause the scanner to malfunction.

Do not use aerosol sprays near the scanner.



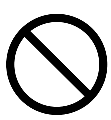
Do not use aerosol sprays to clean the scanner. Aerosol sprays cause dirt and dust to enter the scanner, resulting scanner failure and malfunction.

Disconnect the power plug from the power outlet when the scanner is not used for a long period of time.



When the scanner is not going to be used for a long period of time, be sure to disconnect the power plug from the power outlet for safety.

Do not install the scanner in the direct sunlight.



Do not install the scanner under direct sunlight or near heating apparatus. Doing so might cause excessive heat to build up inside the scanner, which can cause scanner trouble or even fire. Install the scanner in a well-ventilated location.

1

Chapter 1

BASIC SCANNER OPERATIONS

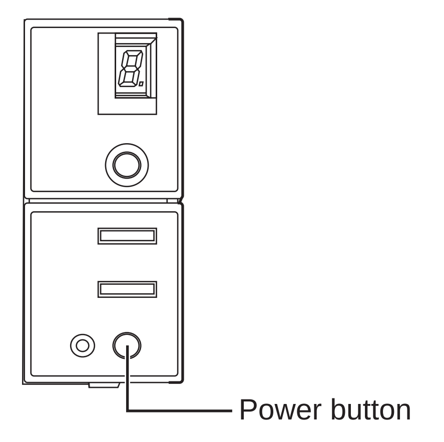
This chapter describes basic scanner operations.

In this chapter Windows XP screenshots are illustrated.
The screens and operations may differ slightly if the OS you are using is not Windows XP.
Also, when FUJITSU TWAIN32 is updated the screens and operations noted in this chapter will differ slightly.

1.1 Turning the Scanner ON

1. Press the power button on the operator panel.

   The scanner is turned ON, and the green LED on the operator panel lights.
   During the initialization, the indication of the Function Number Display changes as follows: “8”->"P" -> "0" -> "1"
   The indication "1" means that the operator panel is in the ready status.





To turn the scanner OFF, hold the power button down for two seconds.

■ About Power ON/OFF Control

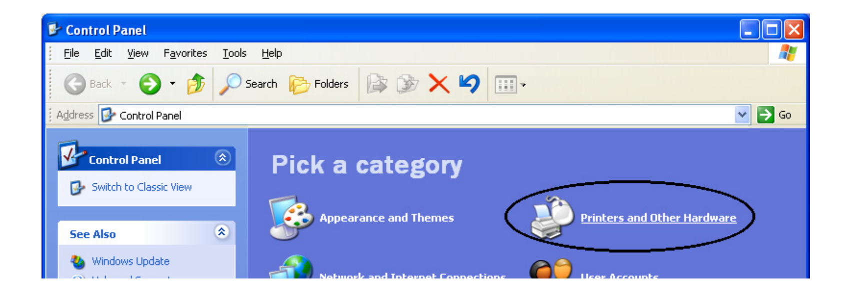
You can select to power the scanner on/off either by pressing the Power button, or by connecting / disconnecting the AC cable.
The procedure is as follows.

1. Open Scanner’s Properties.

•For Windows 98 / Windows Me / Windows 2000 / Windows XP

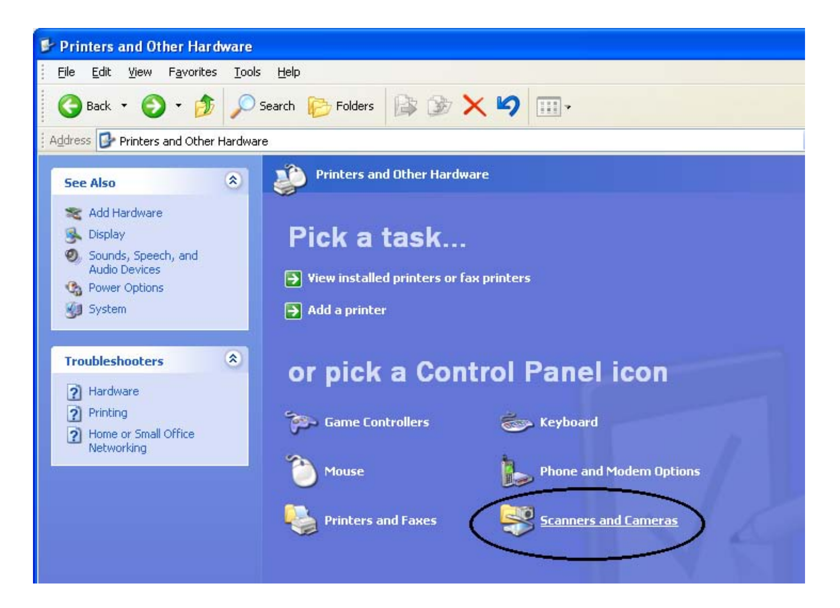
1) When turning on the power, check that the scanner is connected to your PC. Refer to "2.2 Connecting the Scanner to a PC" in fi-5530C Getting Started on the CD-ROM for information about connecting the scanner to your personal computer.

2) Double click the "Printer and Other Hardware" icon on the Control panel of your PC.



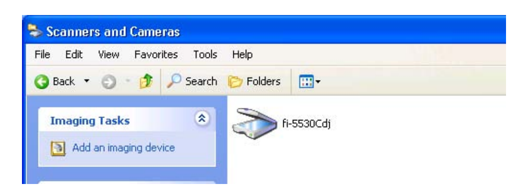
⇒ The [Printer and Other Hardware] window appears.

3) On the [Printers and Other Hardware] window, double click the [Scanners and Cameras] icon.



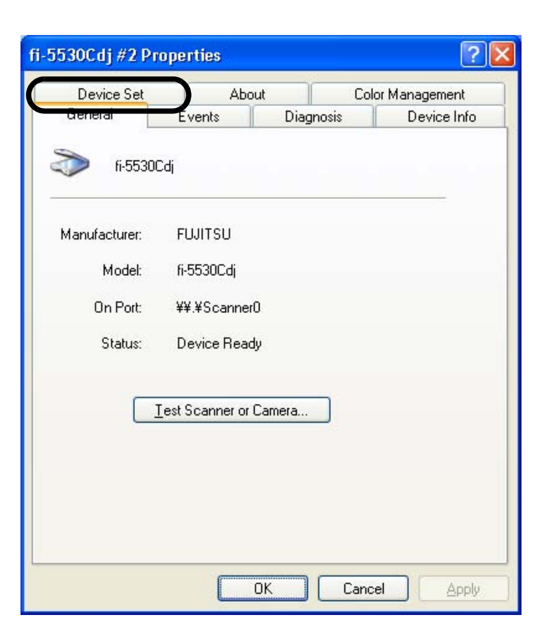
⇒ The [Scanners and Cameras] window is displayed.

4) Right click the "fi-5530Cdj", and select [Properties] from the menu.



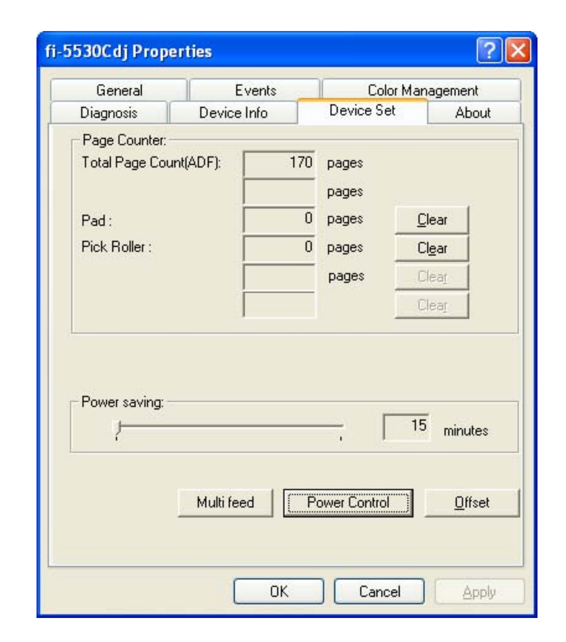
⇒ The [fi-5530Cdj Properties] dialogbox appears.

5) Click the "Device Set" tab.



BASIC SCANNER OPERATIONS 1

⇒ The following screen appears.

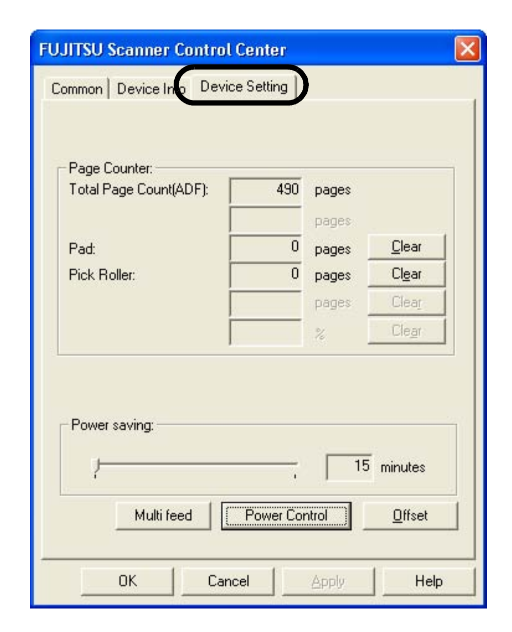


•For Windows 95 / Windows NT 4.0

1) When turning on the power, check that the scanner is connected to your PC.

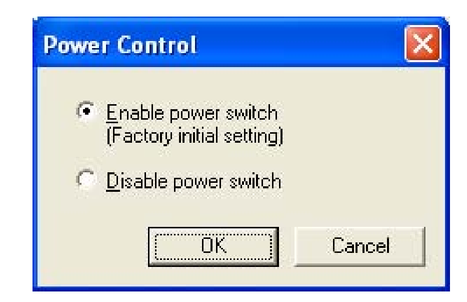
2) Right click the "FUJITSU Scanner Control Center" icon displayed in the task tray, then select "Option".

3) Click "Device Setting" tab.
⇒ The following screen is displayed.



2. Click [Power Control] button

⇒ The following screen is displayed.



3. In this screen,

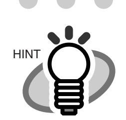
- To power on/off the scanner by pressing the Power button:
  ⇒ Select "Enable power switch".
- To power on/off the scanner by connecting/disconnecting the AC cable:
  ⇒ Select "Disable power switch".

■ Power Save Mode

The Power Save mode keeps the scanner in a low-powered state if no operation is performed on the scanner for 15 minutes after it has been turned ON. The scanner is automatically switched to the Power Save mode.
In the Power Save mode, the indication of the Function Number Display on the operator panel goes out, while the green LED is kept lit.
To return the scanner from the Power Save mode, perform one of the following operations:

- Load documents on the ADF paper chute.
- Press any button on the operator panel.
  The scanner will be turned OFF when pressing down the power button for two seconds.
- Execute a command from the scanner driver.

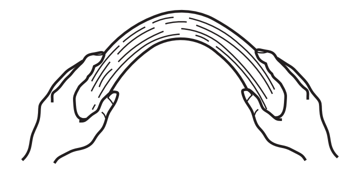
1.2 Loading Documents on the ADF for Scanning



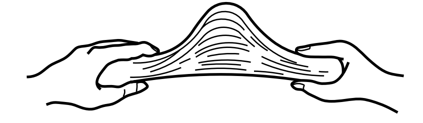
For details about document specifications for ADF, refer to Chapter6 "DOCUMENT SPECIFICATIONS FOR ADF" (page 101).

1. Align the edges of the documents.
   1) Confirm that all the documents have the same width.
   2) Check the number of the sheets in the document stack.
      The standard number of sheets that can be loaded on the scanner is as follows:
      - A4-size paper or smaller that makes a document stack of 10mm or less (100 sheets at 80 g/m^2 or at 20 lb)
      - Over A4-size paper that makes a document stack of 5mm or less (50 sheets at 80 g/m^2 or at 20 lb)

2. Fan the documents as follows:
   1) Lightly grip both ends of the documents with both hands, and bend the documents as follows.

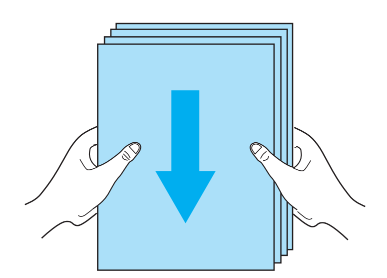


   2) Hold the documents firmly with both hands and bend them back as follows so that the bent section rises up in the middle of the stack as shown below.



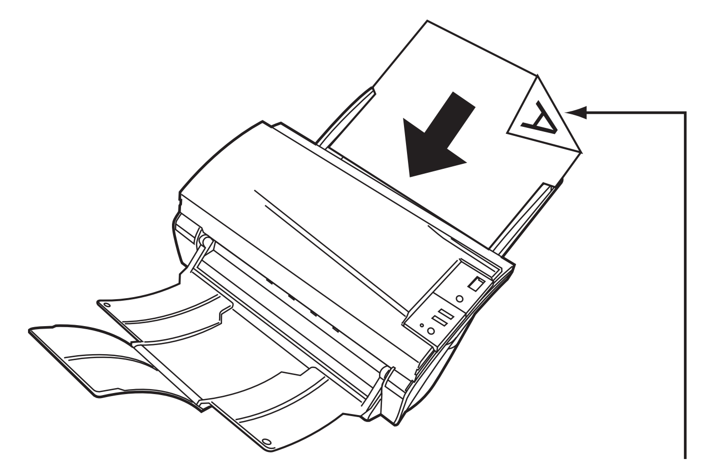
   3) Repeat steps 1) and 2) a couple of times.
   4) Rotate documents 90 degrees, and fan again.

3. Align the top of the documents.



4. Load the documents on the ADF paper chute.

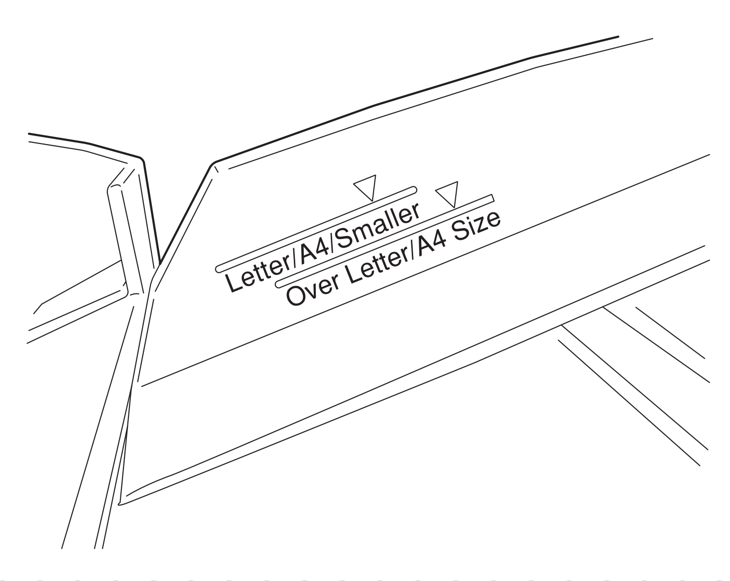
Set the documents face-down in the ADF paper chute (so that the side to be scanned faces towards the ADF paper chute).



Load the documents facing the ADF paper chute.(face down)

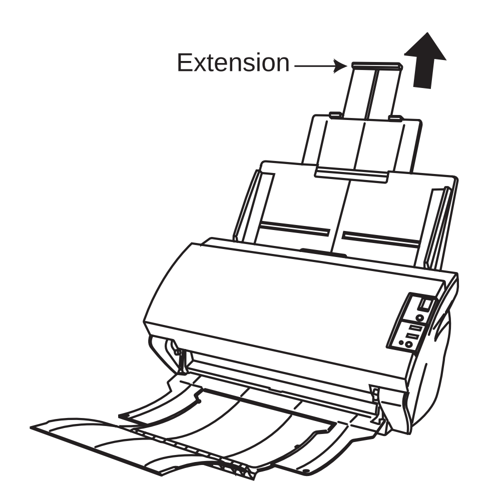


Set the documents so that the stack will not surpass the line mark located at the side guide.
For A4-size paper or smaller, set the documents so that the stack will not surpass the "Letter/A4/Smaller" line mark.
For paper over the A4-size, set the documents so that the stack will not surpass the "Over Letter/A4 Size" line mark.



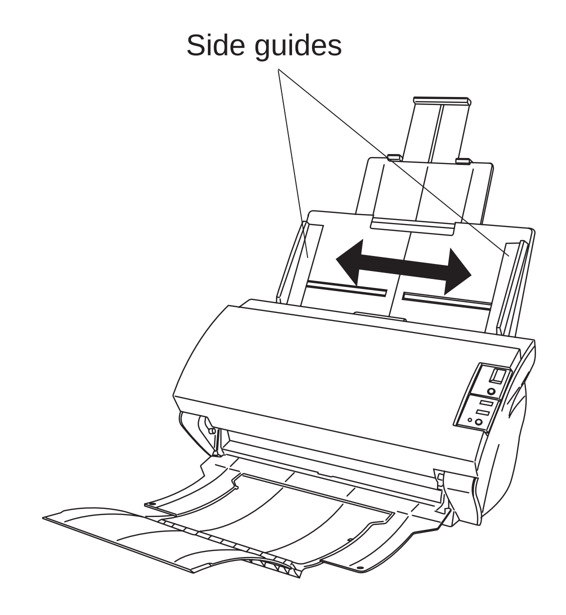


Before loading pull out the ADF paper chute extension according to the lengths of the documents.



5. Adjust the side guides to the width of the documents.

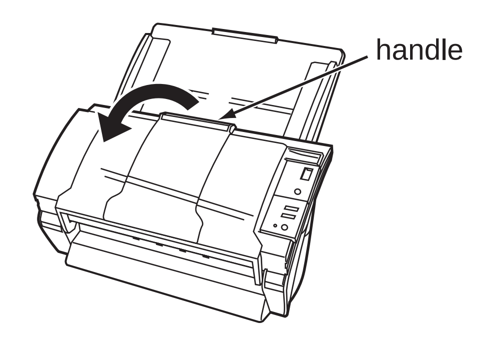
Move the side guides so that they touch both sides of the documents.
If there is any clearance between the side guides and the edges of documents, the scanned image may be skewed.



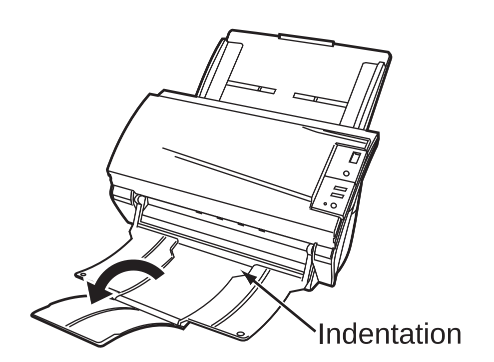


The stacker prevents document sheets from dropping after they were scanned.
Use the stacker as follows:

1. Lift up the stacker towards you by inserting your fingertips into the handle on the scanner.



2. Lift the paper stop and swing forward by inserting your fingertips into the indentations on the stacker.



6. Start up the scanner application and scan the documents.

For details on how to scan documents using the ScandAll 21 application, refer to "1.3 Scanning Documents" on page 10.

1.3 Scanning Documents

This section explains how to scan documents using Scandall21 as an example.

1. Load documents on the scanner's ADF paper chute.

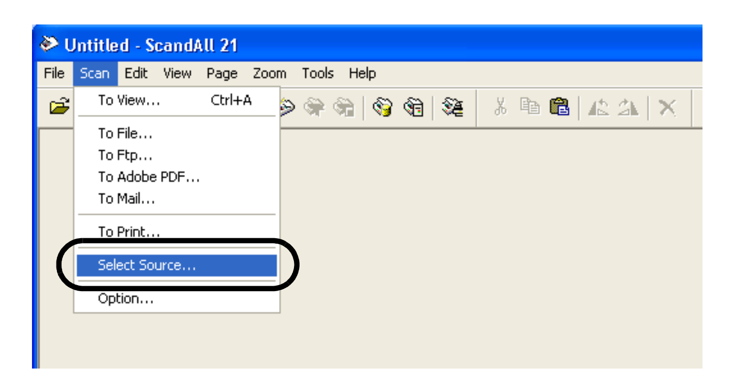
   For details about loading documents, refer to "1.2 Loading Documents on the ADF for Scanning" on page 6.

2. Start up ScandAll 21.

   Select [Start] - [Program] - [Scanner Utility for Microsoft Windows] - [ScandAll 21].
   ⇒ This starts up ScandAll 21.

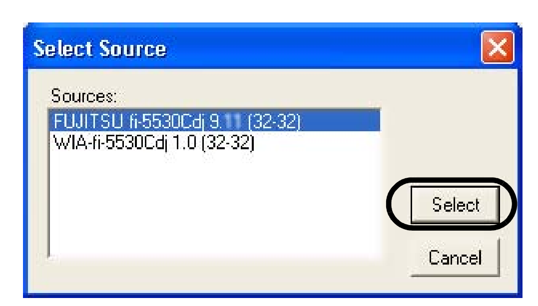
3. Select the scanner to use.

   Select [Select Source] from the [Scan] menu.

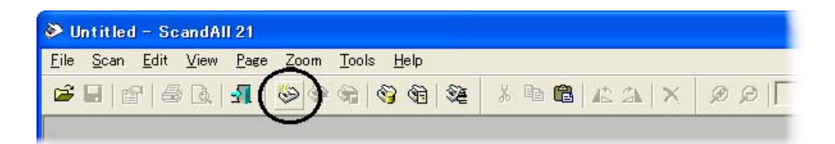


   ⇒ The [Select Source] dialog box appears.

   Select "FUJITSU fi-5530Cdj" (for Windows 95 and WindowsNT 4.0, select "FUJITSU TWAIN 32") and click the [Select] button.



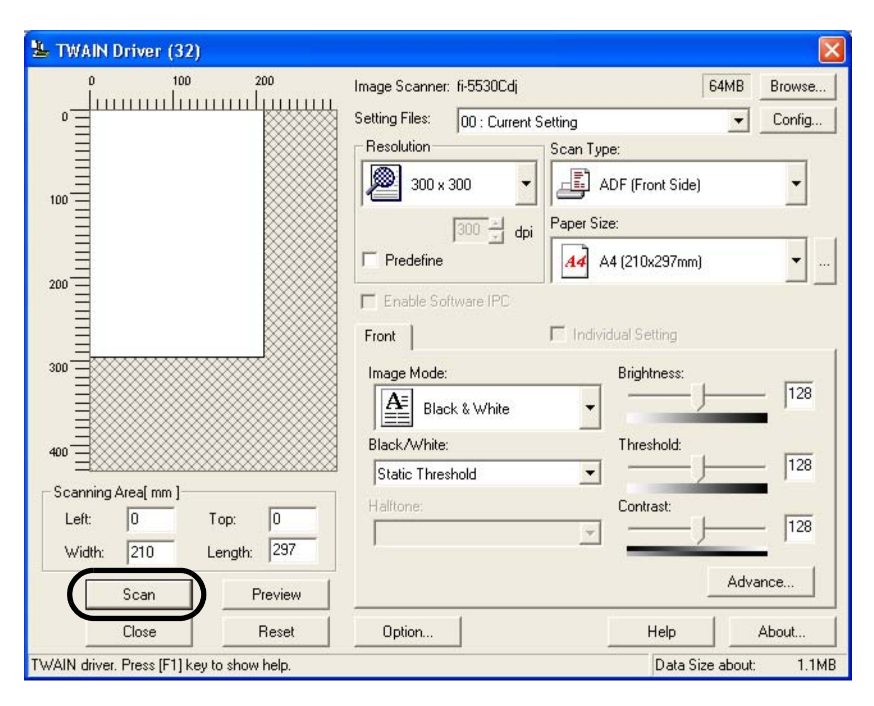
4. Click the [Scan To View] button on the tool bar.



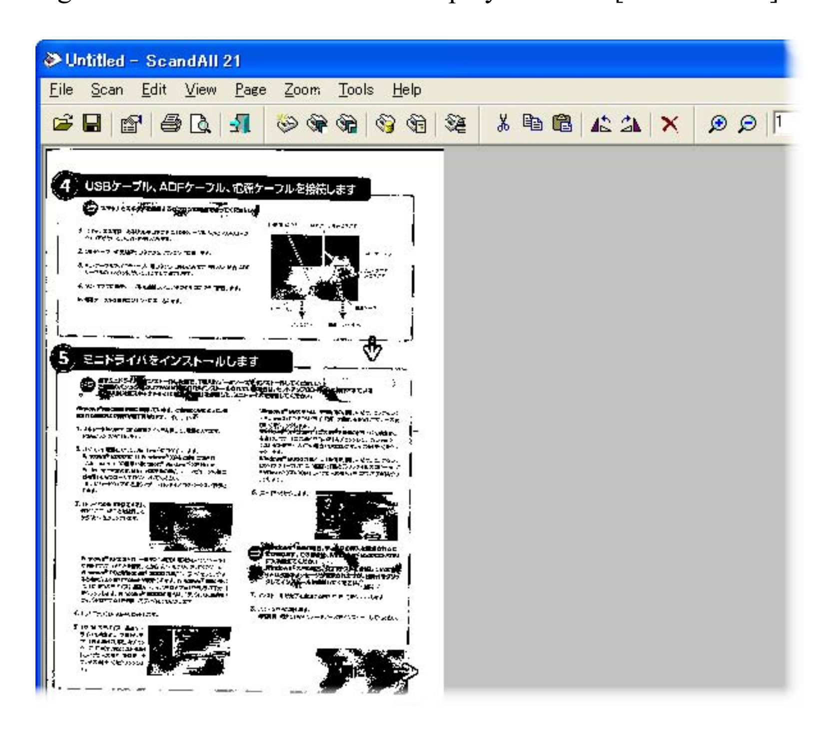
   ⇒ The [TWAIN Driver] dialog box (for setting the scan conditions) appears.

5. Set the scan resolution, paper size, etc., and click the [Scan] button.

For details on settings in the [TWAIN Driver] dialog box, refer to "How to use the Scanner Driver" on page 9.



⇒ The images of scanned documents are displayed on the [ScandAll 21] window.



For details on different types of scanning, refer to "2 SCANNING VARIOUS TYPES OF DOCUMENTS" on page 27.
For details on functions and operations of ScandAll 21, refer to the description in the [Help] menu.

1.4 How to use the Scanner Driver

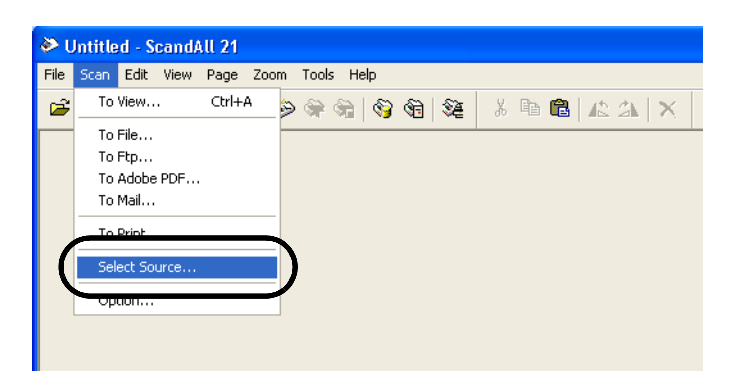
■ FUJITSU TWAIN32 Scanner Driver

FUJITSU TWAIN32 Scanner Driver is designed for scanning documents with FUJITSU image scanner fi series by using application software that complies with the TWAIN standard.
The following describes the procedure with examples of ScandAll 21 for ordinary scanning by using this driver.

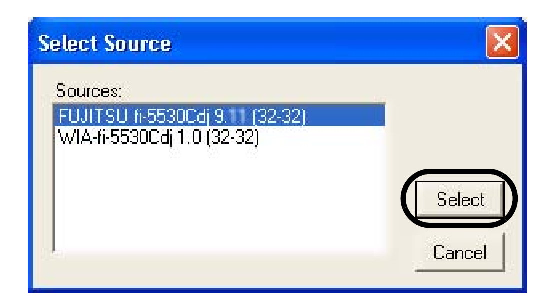
1. Procedure for Basic Scanning Operation

1) Startup the application.
   From the [Start] menu, select [Programs]-[Scanner Utility for Microsoft Window] and click [ScandAll 21].

2) Select your scanner on the window below.
   Select [Select Source] from the [Scan] menu.



3) Select the scanner to use, then click the [Select] button.



   Select
   - [FUJITSU fi-5530C] for Windows 98, Windows Me, Windows 2000 and Windows XP

   or
   - [FUJITSU TWAIN32] for Windows 95 and Windows NT 4.0

   then click the [Select] button.

4) Load the documents on the scanner.
   For details on loading documents, refer to "1.2 Loading Documents on the ADF for Scanning" on page 3.

5) Open the TWAIN Driver window.

Select [Scan To View] from the [Scan] menu.

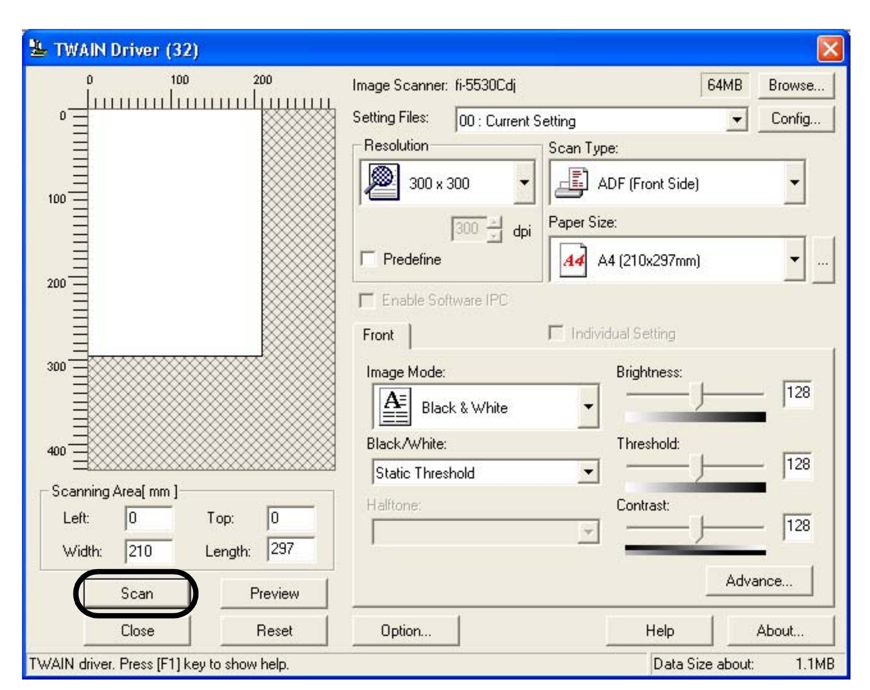


ScandAll 21 provides the following scanning methods:

- [To View...] :Displays scanned images on the display screen.
- [To File...:] :Saves scanned images as files (*.BMP, *.TIF, *.JPG).
- [To FTP...:] :Transfers scanned images to a FTP server.
- [To Adobe PDF...:] :Saves scanned images as PDF files.
  (*Adobe Acrobat must be installed beforehand.)
- [To Microsoft SharePoint Portal Server...] :Transfers scanned images to Microsoft Share Point Portal Server.
- [To Mail...] :Launches mailer software and attaches scanned images to e-mail.

For details, refer to the [Help] menu.

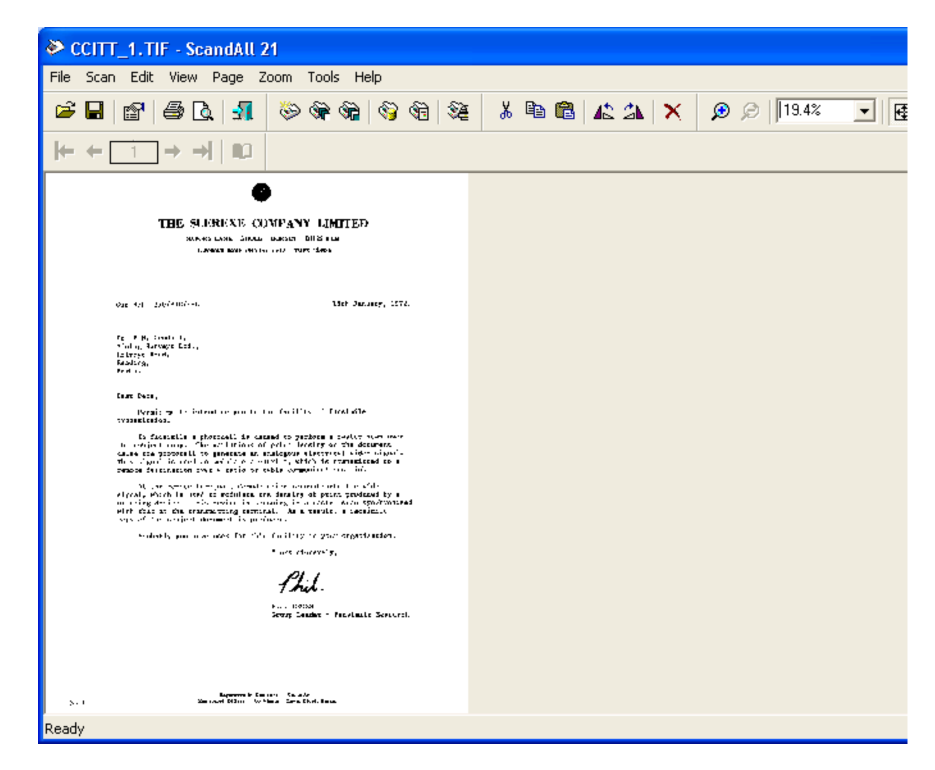
6) Configure settings for scanning and click the [Scan] button.



For details about the settings on this window, refer to "Setting Window for FUJITSU TWAIN32 Scanner Driver" on page 15.



⇒ The images of scanned documents are displayed on the [ScandAll 21] window.



Depending on the settings of the application software, images may not be displayed. For details, refer to the documentation or Help file of your application.

e.x.) When you select [To File...] from the [Scan] menu of ScandAll 21, images of scanned documents are not displayed on the window.

7) Save the scanned images.
   Select [Save As...] from the [File] menu to save the scanned images.
   If you wish to start another scanning, return to procedure 4).

8) End ScanndAll 21.
   Select [Exit] from the [File] menu.

2. Setting Window for FUJITSU TWAIN32 Scanner Driver

You can set the FUJITSU TWAIN32 Scanner Driver on this window.
The following describes the main setting items.

- For details on each functions, refer to "FUJITSU TWAIN32 Scanner Driver Help" (appears by pressing [Help] or [F1] button).
- Depending on the type of your scanner, available settings or range of setting values vary.

Resolution

Specifies the resolution of scanning.
It can be specified by selecting from the list a default value or "custom" (specifies any resolution in 1 dpi unit).
By marking the [Predefine] checkbox, you can select one from three predefined settings as [Best, [Better] and [Normal] to scan documents instead of setting details by yourself. Otherwise, you can change the predefined settings of [Best, [Better] and [Normal] by clicking the [...] button.

Scan Type

Specifies the feeding method, the side(s) to be scanned (Front Side, Back Side, Duplex) or details of Long page (the size of documents longer than A3).

Paper Size

Selects the size of documents to be scanned from the list.
Windows for customizing the paper size will appear when you click on [...] by the list.
You can save any document size as a customized setting (up to three) or for changing the order of the paper size in the list.

Image Mode

Specifies the image type for the scanned documents.

Black & White	Documents are scanned in binary (black and white).
Halftone	Documents are scanned through halftone processing in black and white.
Grayscale	Documents are scanned in gradations from black to white. For this mode you can select 256 gradations or 4 bit (16 gradations).
Color	Documents are scanned colored. For this mode, you can select 24 bit Color, 256Color or 4 bit Color.

[Scan] button

Starts scanning documents with the current settings.

[Preview] button

Documents are scanned preliminarily before the actual scanning.
You can confirm the image of the documents in the preview window.

[Close] button

Saves the current settings and closes this window.

[Reset] button

Used to undo changes of settings.

[Help] button

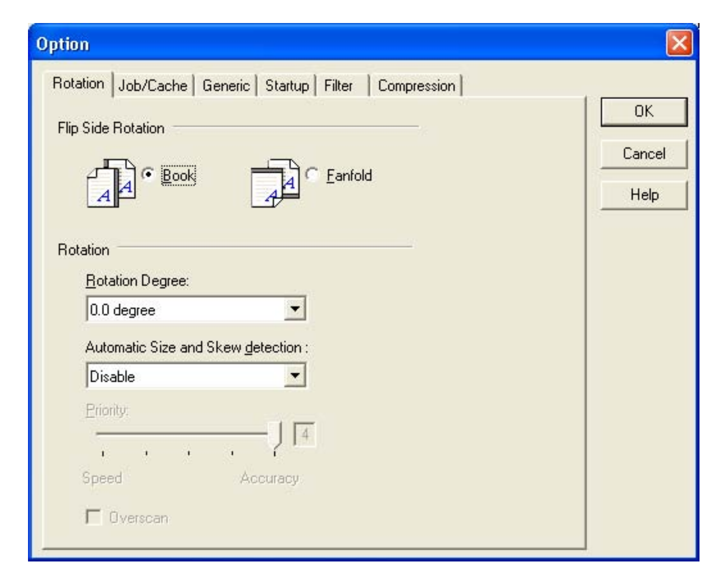
Opens the "FUJITSU TWAIN32 Scanner Driver Help" window. The window also opens by pushing the [F1] key.

[About...] button

Opens an information window about the FUJITSU TWAIN32 Scanner Driver's version.

[Option...] button

You can set up the details of optional functions on the window below.



[Rotation] tab

Select this tab when setting image rotation, detection of document size, etc.

[Job/Cache] tab

Select this tab when setting cache mode, multi feed detection, blank page skipping, etc.

[Generic] tab

Select this tab to change the unit displayed on the Setting Window for the FUJITSU TWAIN32 Scanner Driver. (Millimeters, Inches, and Pixels are available)

[Startup] tab

Select this tab for setting the Scanner Operation Panel.

[Filter] tab

Select this tab for setting the image processing filter(s).
Page Edge Filler: Fills up the margins of the scanned documents with a selected color.
Digital Endoser: A character string, such as the alphabet and numbers, can be added in the scanned document.

[Compression] tab

Select this tab for setting the compression rate of JPEG Transfer.

[Advance...] button

Click this button for settings of the advanced image processing.
You can set Edge Extract, Gamma Pattern, Dropout Color, Reverse, etc.

[Config...] button

Click this button for configuring the Setting Files.
You can save the changed settings as a Setting File. From next scanning, the settings are quickly changed by using these Setting Files.

For details of each function, refer to the "FUJITSU TWAIN32 Scsnner Driver Help".

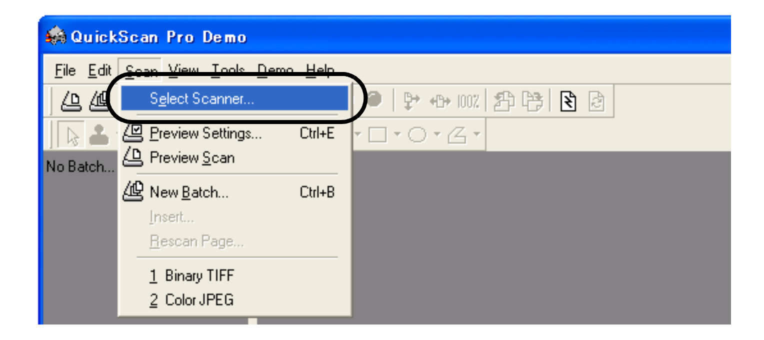
■ FUJITSU ISIS Scanner Driver

FUJITSU ISIS Scanner Driver is designed for scanning documents with FUJITSU image scanner fi series by using application software that complies with The ISIS standard.
The following describes the procedure with examples of QuickScan for ordinary scanning by using this driver.
The procedure may vary depending on your application. If you use an application other than QuickScan, please refer to its Guide or Help for further information.

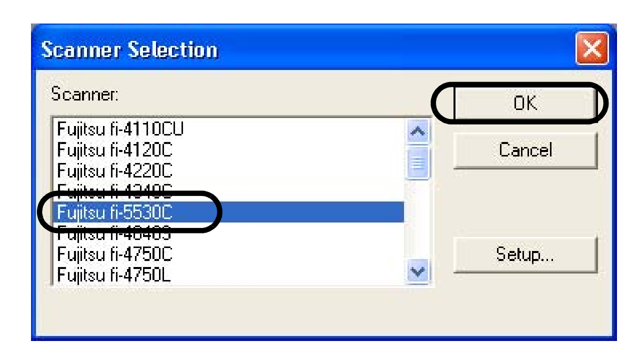
1. Procedure for Basic Scanning Operation

1) Startup the application.
   From the [Start] menu, select [Programs]-[QuickScan] and click [QuickScan].

2) Select your scanner on the window below.
   Select [Scan] - [Select Scanner] on the menu bar.

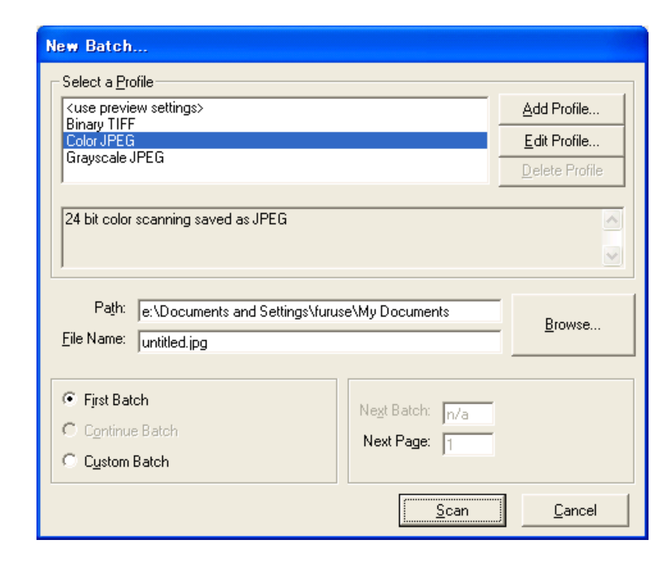


3) Select fi-5530C, then click the [OK] button.



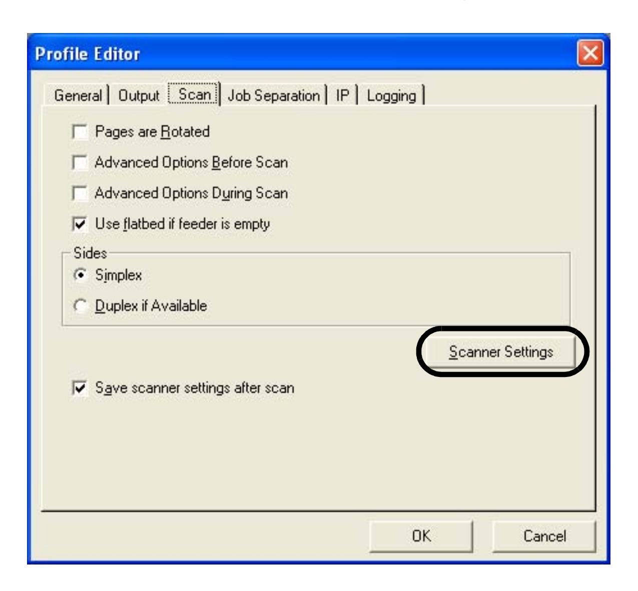
4) Select [Scan] - [New Batch] on the menu bar.

5) Select the profile for scanning.



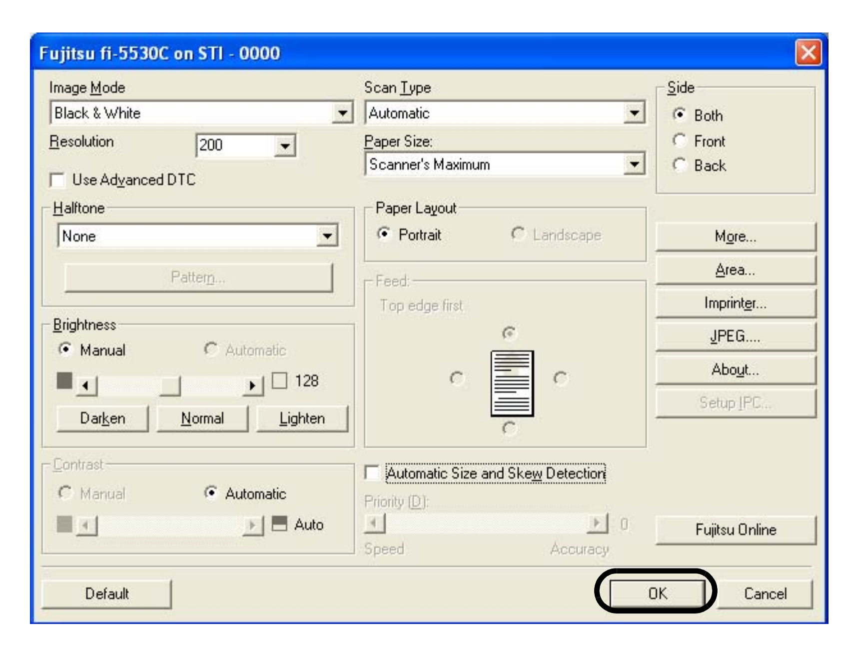
- When creating a new profile
  Select one from already existing profiles and click [Add Profile...] button.
  ⇒ A new profile will be created based on the profile you select.
- When changing the settings of already existing profiles
  Select one from already existing profiles and click [Edit Profile...] button.
  ⇒ The settings of the selected profile can be changed.
- When using an existing profile
  Select the one from an already existing profiles
  ⇒ The scanning will be started according to the settings of the selected profile.
  Go to the procedure 9.

6) Open the window of ISIS Driver.
   Select the [Scan] tab and click the [Scanner Settings] on the [Profile Editor] window.



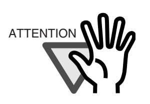
⇒ The configuration window of ISIS driver appears.

7) Configure settings for scanning and click the [OK] button.



For details on this dialog box, refer to "Configuration Window of FUJITSU ISIS Scanner Driver" on page 21.

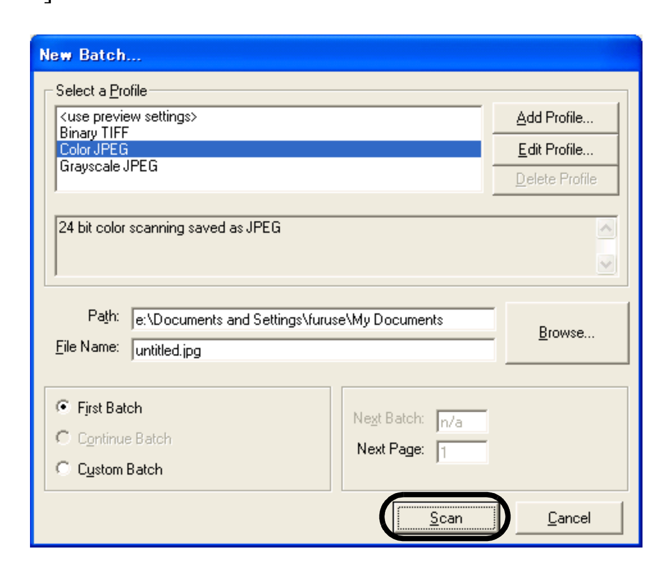
8) The [Profile Editor] window appears. Click the [OK] button to return to [New batch] dialog.



Configure other settings of the profile, if necessary.
Refer to the "QuickScan Overview" or the "QuickScan Help" for further information on functions and operations of QuickScan. After the installation of QuickScan, it is registered in the [Start] menu.

9) Load the documents on the scanner.

10) Click the [Scan] button.



⇒ Scanned images are displayed on the window.

Refer to the "QuickScan Overview" or the "QuickScan Help" for further information on functions and operations of QuickScan. After the installation of QuickScan, it is registered in the [Start] menu.

2. Configuration Window of FUJITSU ISIS Scanner Driver

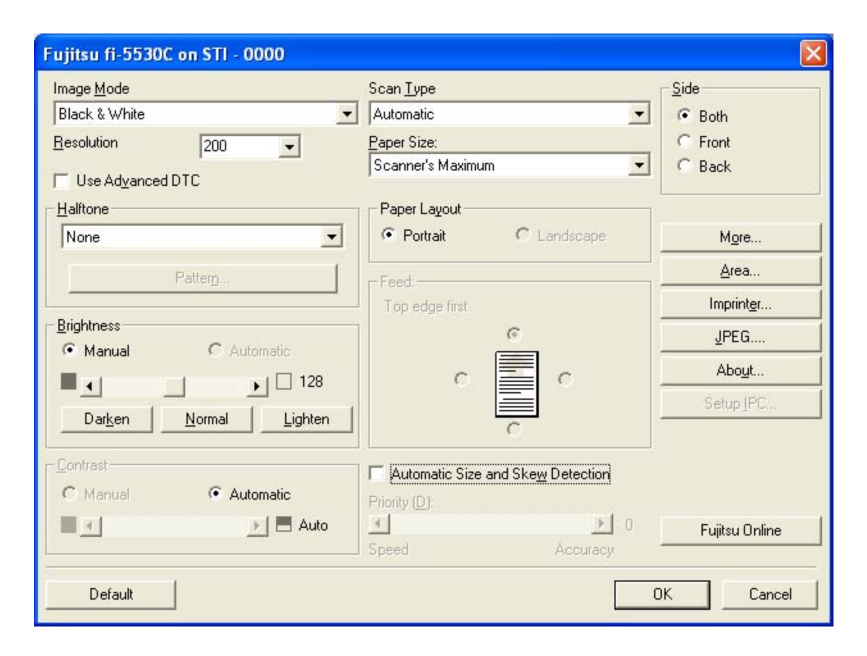


Image Mode

Selects a color mode suitable for the purpose from the menu.

Black & White	Scans data in binary (black and white). Distinguishes black from white according to the fixed threshold. This scanning mode is suitable for scanning line drawings and text documents.
16-level Grayscale	Scans data by 14 shades of gray plus black and white. This mode uses 4 bits per pixel.
256-level Grayscale	Scans data by 254 shades of gray plus black and white. This mode uses 8 bits per pixel. This mode is switable for scanning monochrome photographs.
24-bit Color	Scans data as full-colored image using 24 bits per pixel. This mode is suitable for scanning color photographs.
Image Processing	Binary processing is applied to the scanned images This mode is available only when Image Processing Software Option (separately sold) is installed. Please refer to the "User's Guide of Image Processing Software Option" for details.

Resolution

Specifies the number of pixels (dots) per inch.
Select a fixed resolution from the list or enter any value (from 50 to 600) manually.
A higher resolution produces finer image, but requires much more memory.

Halftone

Selects the halftone pattern for halftone scanning. This setting is available when "Black & White" is selected in the "Image Mode".

Dither Pattern 0	This setting is suitable for scanning dark photographs.
Dither Pattern 1	This setting is suitable for scanning dark-colored documents containing both text and photographs.
Dither Pattern 2	This setting is suitable for scanning light photographs.
Dither Pattern 3	This setting is suitable for scanning light-colored documents containing both text and photographs.
Error Diffusion	This function minimizes differences of color levels due to subtractive color process by diffusing the difference to the adjacent pixels. This mode is suitable for scanning images of photographs, etc.
Download	This function executes processing with the dithered download pattern specified in the dithered download file.

Brightness

Sets the brightness of the entire image. Specify the brightness as a number within the range of 1 (dark) to 255 (bright). To brighten the entire image, increase the value of the setting. To darken the entire image, decrease the value.

Contrast

Sets the contrast between light and shadow of the scanned image. Specify the contrast as a number within the range of 1 (low [soft]) to 255 (high [sharp]). Increasing this value makes the contrast sharper.

Scan Type

Selects the scanning method.

ADF (Front Side)	Scans only the front sides of documents.
ADF (Back Side)	Scans only back sides of documents.
ADF (Duplex)	Scans both front and the back sides of documents. When this option is selected, the both sides of documents are scanned simultaneously.

Paper Size

Selects a paper size according to the size of the document to be scanned. Select a standard paper size from the list.

Paper Layout

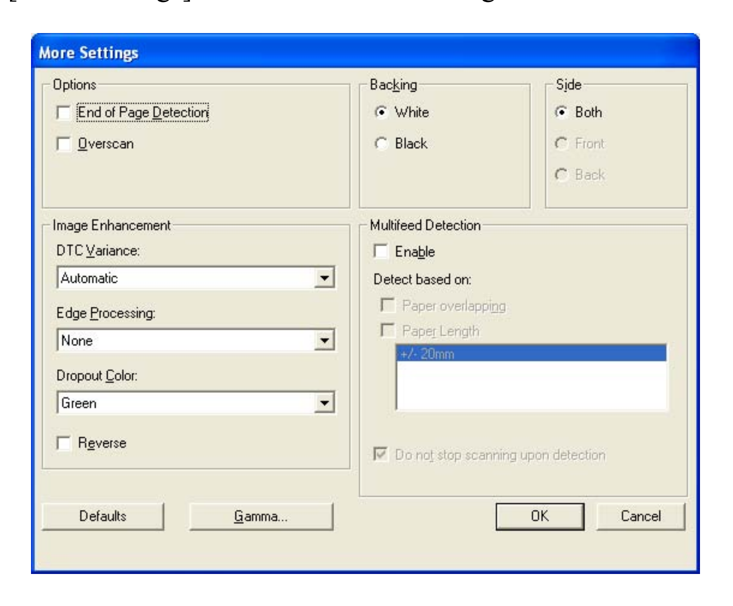
Specifies orientation of the documents as portrait or landscape.

Automatic Size and Skew Detection

Automatically detects the document's page size, and the output will be adjusted to the detected page size. Document skewing is automatically detected and corrected for the output image.

[More...] button

Opens [More Settings] window. Used for setting advanced features.



End of Page Detection

Detects the (bottom) edge of the documents and outputs the data trimmed by the document length. When any page shorter than specified "Paper Size" is scanned, the output size (length) is adjusted to the detected document length.

Overscan

Specifies the overscan function, which makes the scanned images larger than the original documents by adding margins.

Gamma

Specifies Gamma correction. Correction patterns are: "Normal", "Soft", "Sharp", "Custom", or "Download".

DTC Variance

Specifies the value for adjusting the variance based on the brightness of the image.

Edge Processing

Specifies the sharpness of contour extraction.

Low, Mid, High	Emphasizes contour of images. Available settings are: Low, Mid, High
Smoothing	Smoothes jaggy images.

Dropout Color

Excludes selected color (the three primary colors of light i.e. green, red, blue) from scanned images. For example, if the document contains black text in a red frame and when the red color is selected, the scanner reads only the text and eliminates (drops out) the red frame.
If you do not wish to have any colors dropped out select "None".

Reverse

Colors of scanned images are reversed.

Backing

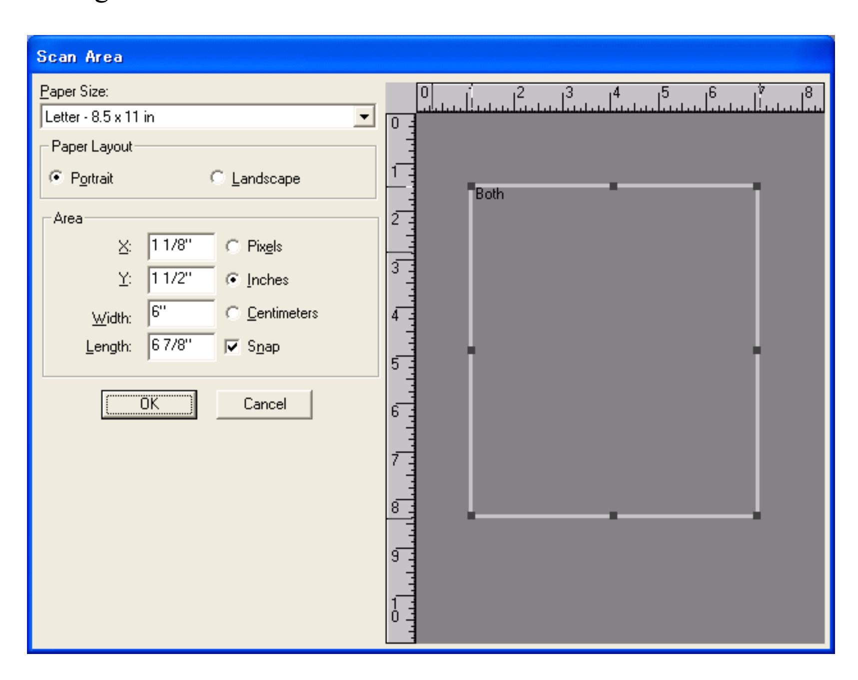
With this function, the outside of document paper becomes black / white by selecting [black] / [white] background.

Multi Feed Detection

Detects Multi feeds (phenomena that two or more sheets are accidentally fed). You can set conditions for detecting Multi feeds so that the scanner should stop and display error messages. Multi feed is detected by the differences in document lengths or by the overlapping of documents.

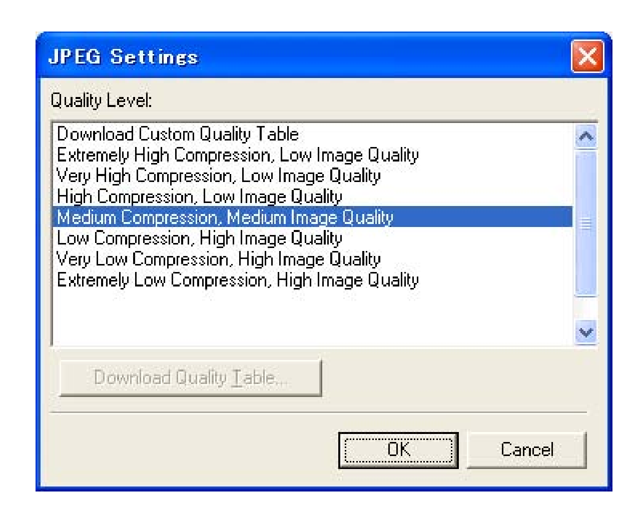
[Area...] button

Opens the Scan Area dialog box.
Specify scan area for the document size.
The size can be set by dragging the frame with mouse. Otherwise, enter any value for the setting.



[JPEG...] button

Opens the JPEG Settings dialog box used for setting the compression rate of JPEG transfer.

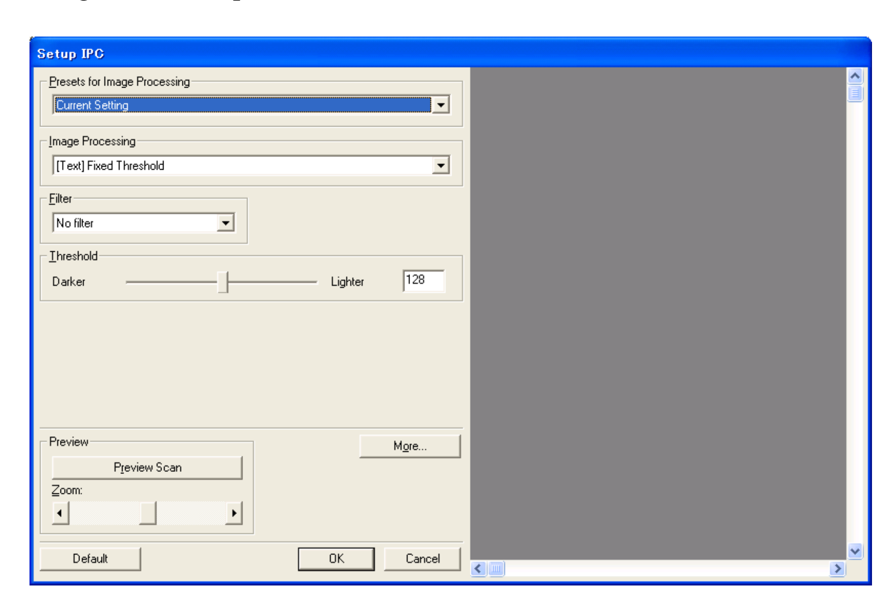


[About...] button

This button displays the version information.

[Setup IPC...] button

This button displays the Image Processing dialog. This button is enabled when Image Processing Software Option (separately sold) is installed and "Image Processing" is selected in the "Image Mode". Refer to the documentation provided with Image Processing Software Option.



Chapter 2

SCANNING VARIOUS TYPES OF DOCUMENTS

2

This chapter describes how to scan various types of documents.

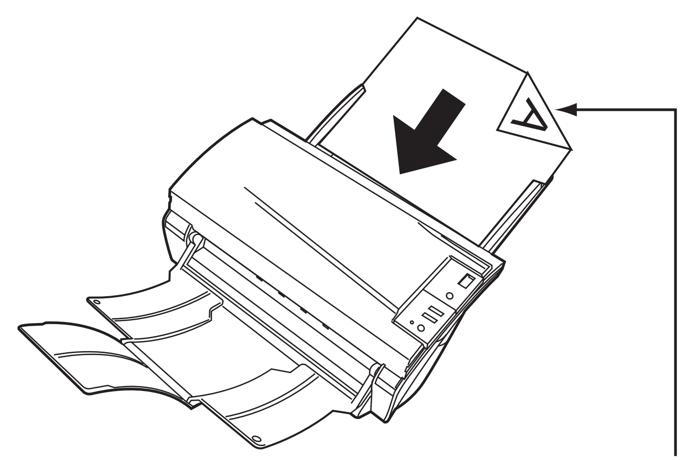
This chapter explains how to scan documents using Scandall21 as an example.

In this chapter Windows XP screenshots are illustrated.
The screens and operations may differ slightly if the OS that you are using is not Windows XP. Also, when FUJITSU TWAIN32 is updated the screens and operations noted in this chapter will differ slightly.

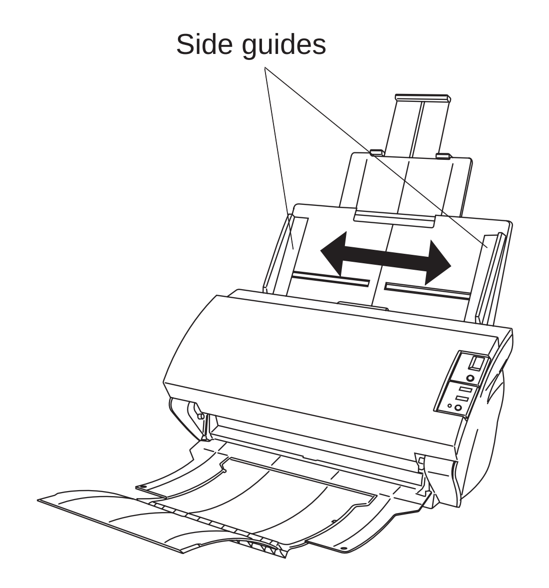
2.1 Scanning double sided Documents

1. Load the documents on the ADF paper chute.

   For details on how to load documents, refer to "1.2 Loading Documents on the ADF for Scanning" on page 6.



2. Adjust the side guides to the width of the documents.



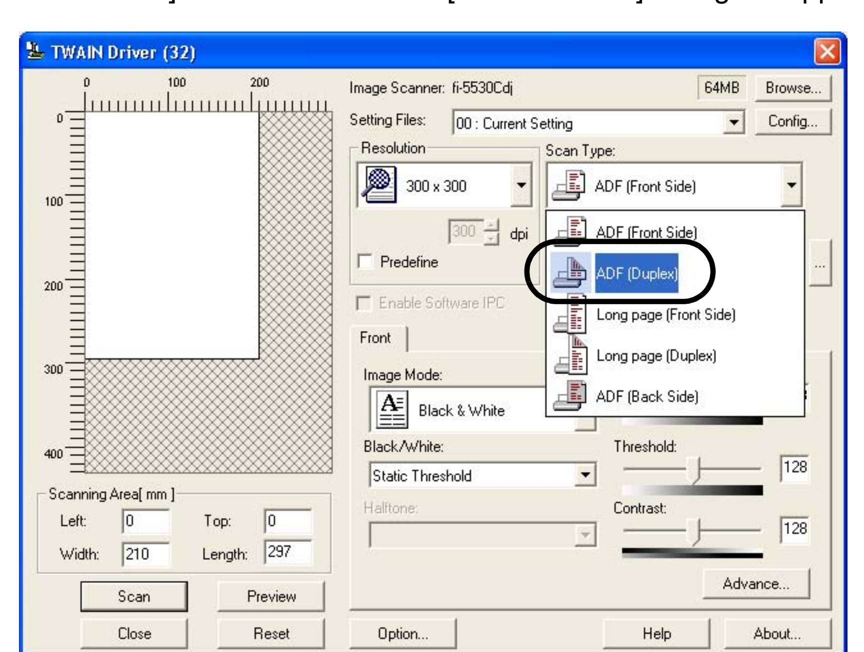
3. Start up ScandAll 21

   From [Start] menu, select [Program] - [Scanner Utility for Microsoft Windows] - [ScandAll 21]. This starts up ScandAll 21.

4. Select fi-5530C.

   From the [Scan] menu, click [Select Source…], then select "FUJITSU fi-5530Cdj" (for details refer to page 10) and click the [Select] button.

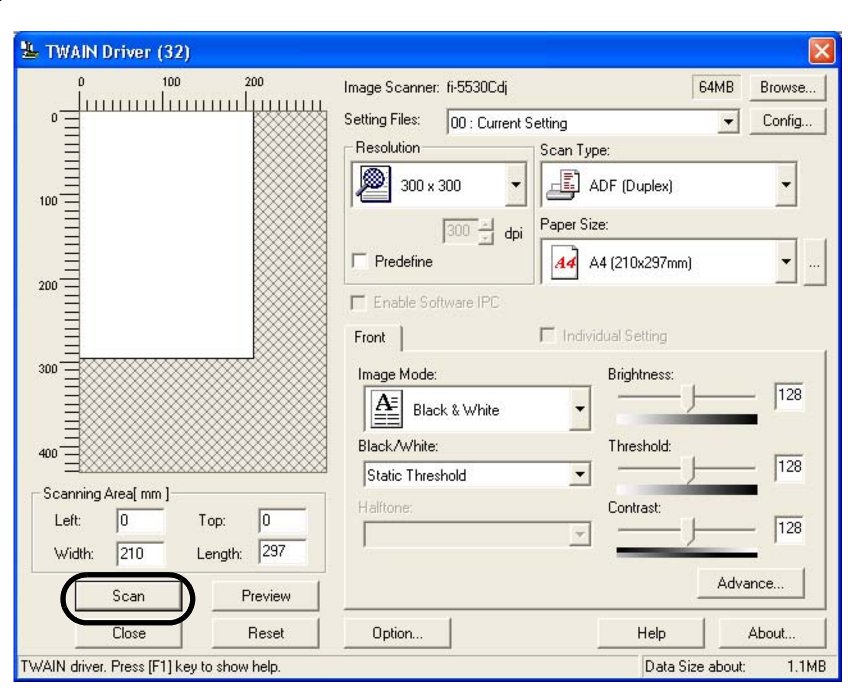
5. Click [Scan To View] on the tool bar. The [TWAIN Driver] dialogbox appears.



6. Select [ADF (Duplex)] from [Scan Type].

7. Click the [Scan] button.

For settings in the [TWAIN Driver] dialogbox, refer to "1.4 How to use the Scanner Driver" on page 12.



⇒ The images of scanned documents are displayed on the [ScandAll 21] window.

For details on functions and operations of ScandAll 21, refer to the description in the [Help] menu of ScandAll 21.

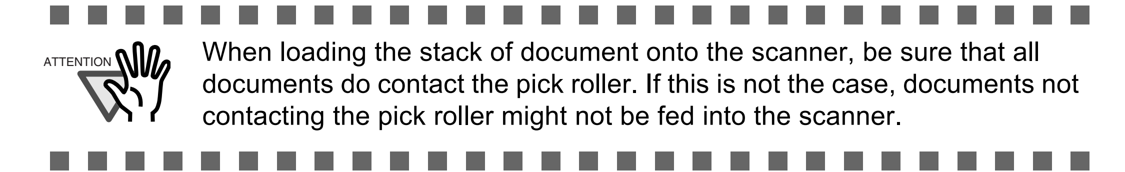
2.2 Scanning Documents with different Widths

When you scan a stack of documents with different widths by using the ADF, the smaller sized documents may be scanned skewed or the scanner may not pick them. Try to scan only documents of the same width together.
However, if you need to scan a stack of documents with different widths, follow the procedure below.

1. To prevent skewed images, select the [Automatic Page Size Detection] from the "Automatic Size and Skew Detection". (For details, refer to "2.9 Correcting skewed Documents" on page 50.)

2. Align the stack so that documents of a smaller width are placed in the center of the stack.

3. Load the stack of documents onto the ADF paper chute and move the side guides so that they contact both sides of the widest sheet.



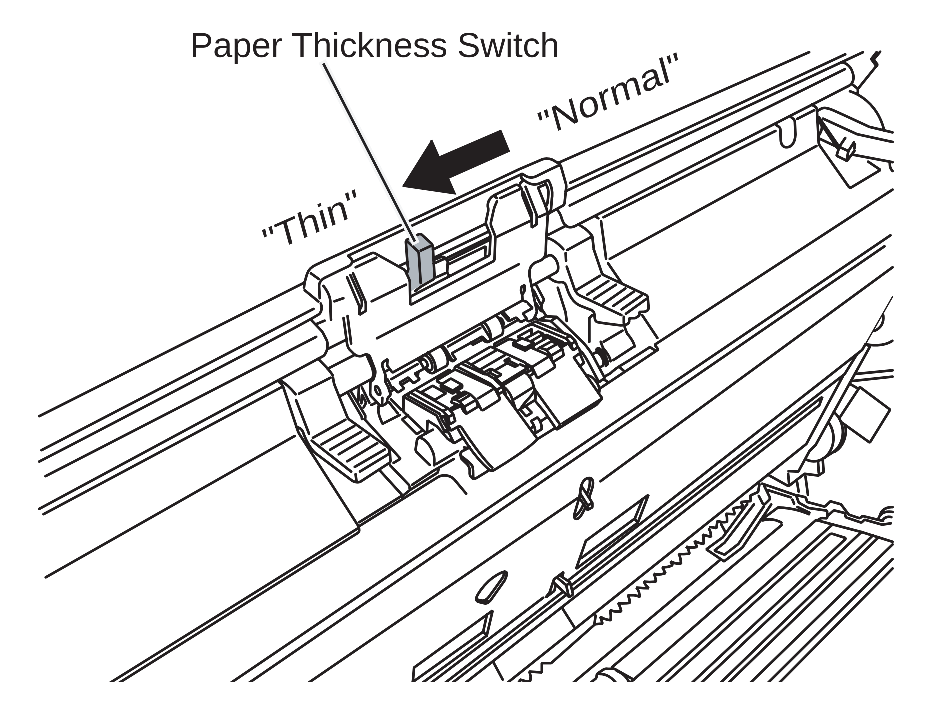
4. Scan the documents by refering to "1.3 Scanning Documents" on page 10.

2.3 Scanning thin Documents

When you scan a batch of thin documents (which are out of specification with under 52g/m² of thickness), document jams (Multi feed) and mis-pickings may occur. If such documents need to be scanned, switch the lever to "Thin" side.

1. Confirm that the thin documents fulfill the requirements of "6.2 Document Quality" on page 103.

2. Shift the position of the paper thickness switch to the "Thin" position (the factory default is "Normal" position).



3. Scan the documents by refering "1.3 Scanning Documents" (page 10).

2.4 Scanning Documents longer than A3 size

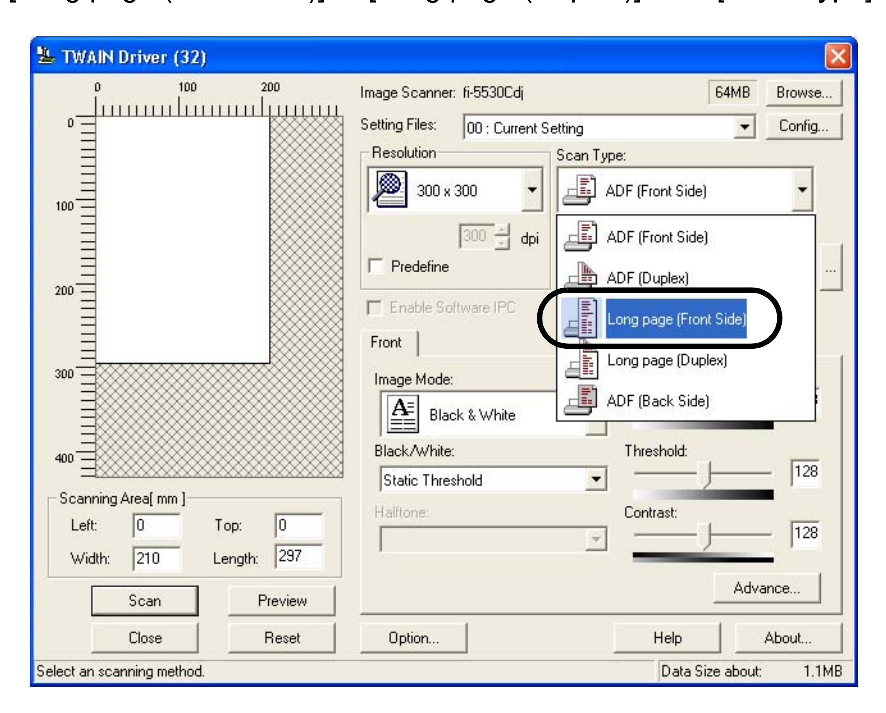
1. Load the document on the ADF.

   For details, refer to "1.2 Loading Documents on the ADF for Scanning" (page 6)

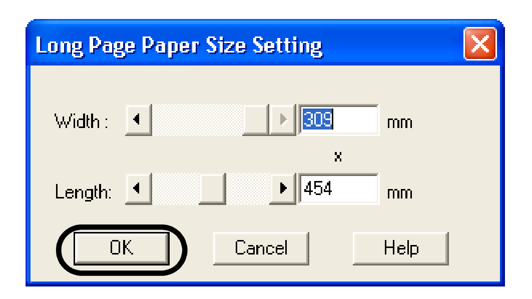
2. Open the TWAIN driver window.

   For details, refer to "FUJITSU TWAIN32 Scanner Driver" (page 12).

3. Select [Long page (Front Side)] or [Long page (Duplex)] from [Scan Type].

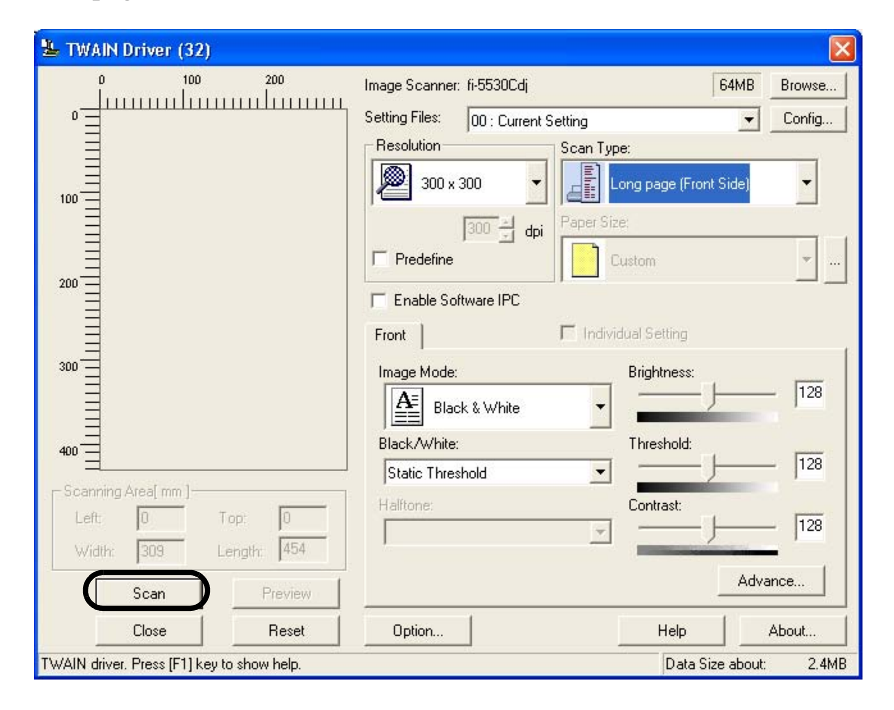


4. Specify the length of documents. Then click the [OK] button.



5. Click the [Scan] button.

For settings in the [TWAIN Driver] dialogbox, refer to "1.4 How to use the Scanner Driver" on page 12.



⇒ Images of scanned documents are displayed on the window of ScandAll 21.

For details on functions and operations of ScandAll 21, refer to the descriptions in the [Help] menu of ScandAll 21.

2.5 Saving scanned Images in PDF Format

To save scanned images in PDF format, Adobe Acrobat must be installed on your PC.
Adobe Acrobat can be installed from the provided Adobe Acrobat CD-ROM.
There are two methods for saving scanned images in PDF format.

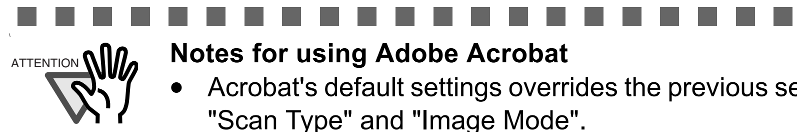
1. Using ScandAll 21 (page 36)

   This method is recommended for color or grayscale scanning and when a smaller PDF file size is required.
   Your benefits are :
   - Reduced PDF data size
   - Simplified method for creating PDF files with no troublesome operations

2. Using Adobe Acrobat (page 37)

   This method is recommended for faster creation of PDF files and for black and white scanning.
   Your benefits are :
   - Quick creation of PDF files with the original scan resolution
   - Flexibile creation of PDF files by changing the PDF compression rates

The file size increases when scanning color documents by a default method. However, you can drastically reduce the size by using the Acrobat Distiller before saving the file. For details, please refer to the hints on page 40.



Notes for using Adobe Acrobat

- Acrobat's default settings overrides the previous settings for "Resolution", "Scan Type" and "Image Mode".
- The following functions cannot be used:
  - "256 Color" or "8 Color"
  - "Rotation Degree" selection when "End of Page Detection" is selected
  - Long Page Scanning
- When scanning a paper document and converting the image to PDF using Acrobat, unexpected images may be output when:
  1. Setting "Edge Shadow Removal" in Acrobat, and setting "Digital Endorser" or "Black Background" options in the TWAIN driver at the same time. Letter strings embedded in the image or the background may be missed.
     Solution 1: Set "Edge shadow removal" to "OFF" or set any option other than "Adaptive" for "Color/Grayscale" and/or "Monochrome" under "Compression" by selecting [File] - [Create PDF] - [From Scanner…] - [Image Settings…] in Acrobat.
     Solution 2: Adjust the scanning density in the TWAIN driver.
  2. Setting "Adaptive" for "Color/Grayscale" and/or "Monochrome" under "Compression" in Acrobat and scanning in a resolution lower than the resolution recommended for Acrobat.
     Solution: Set OPTION to something other than "Adaptive" under "Compression."
  3. Scanning a document longer than the double letter (11x17) or A3 size, when setting "Overscan" in the TWAIN driver, the scan may fail.
     Solution: When scanning a double letter (11x17) or A3 size of document, do not set "Overscan" in TWAIN driver.

As for detailed usage and information of Acrobat, refer to "Create a PDF file from a scanned document" in Acrobat Help.

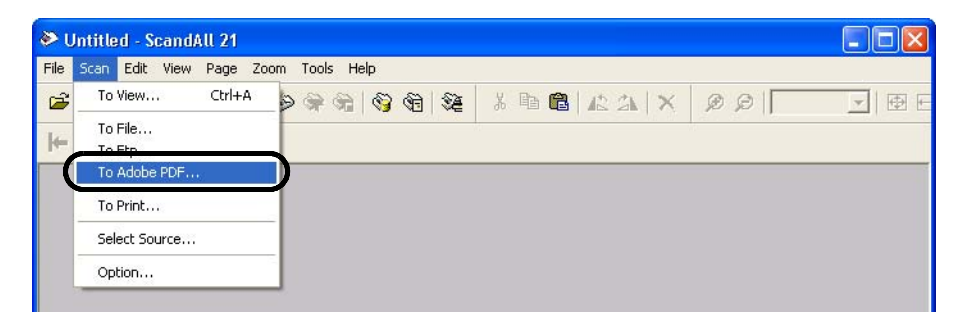
■ Using ScandAll 21

1. Load the documents on the ADF paper chute.

2. Start up ScandAll 21.

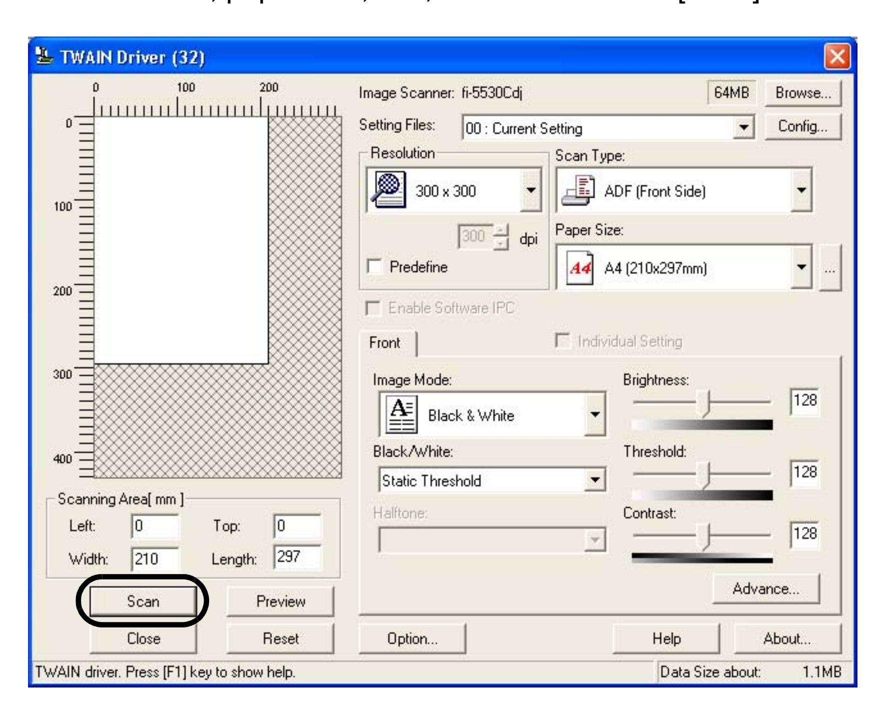
   Select [Program] - [ScannerUtility for Microsoft Windows] - [ScandAll21] from the [Start] menu. This will start up ScandAll 21.

3. From the [Scan] menu select [To Adobe PDF].



   ⇒ [TWAIN Driver] dialogbox appears.

4. Set the scan resolution, paper size, etc., and then click the [Scan] button.

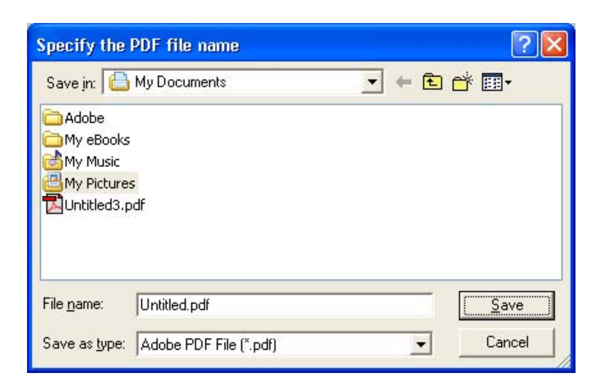


5. To close the [TWAIN Driver] dialog box, click the [Close] button.

   ⇒ The scanned image is displayed.

6. Enter the file name and select the destination to save the scanned image.

   For detalis, refer to the descriptions in the [Help] menu of ScandAll 21.



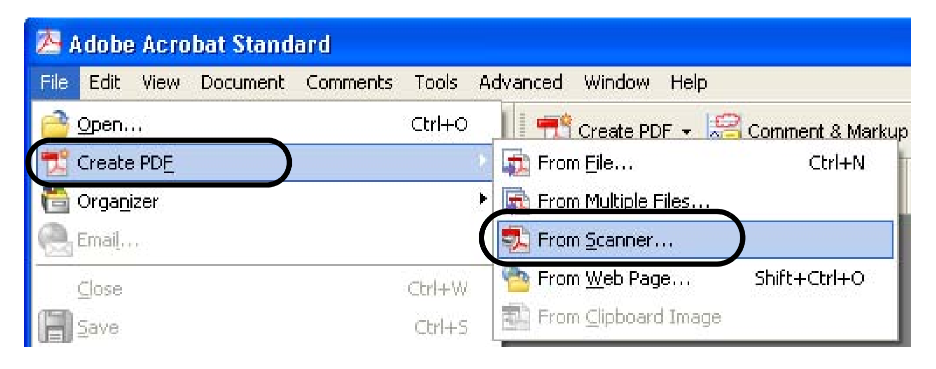
■ Using Adobe Acrobat

1. Load the documents on the ADF paper chute.

2. Start up Adobe Acrobat

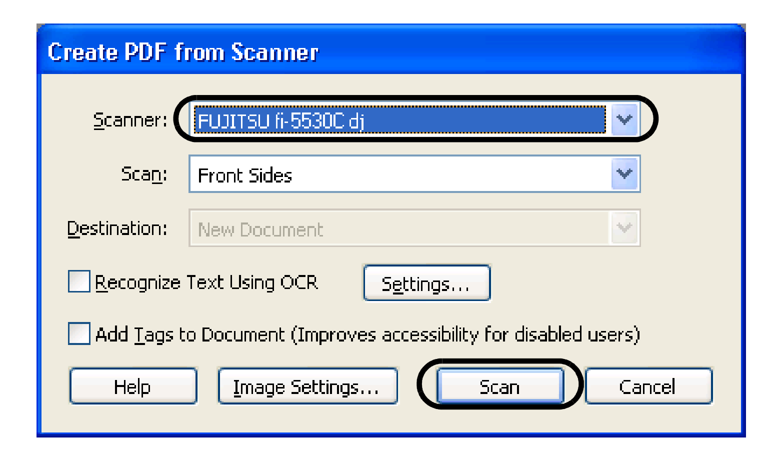
   Select [Program] - [Adobe Acrobat] from the [Start] menu. This starts up Adobe Acrobat

3. From the [File] menu [Create PDF] - [From Scanner].



⇒ The [Create PDF from scanner] dialogbox appears.

4. Select "FUJITSU fi-5530Cdj" at [Scanner] and click [Scan] button.



2

SCANNING VARIOUS TYPES OF DOCUMENTS



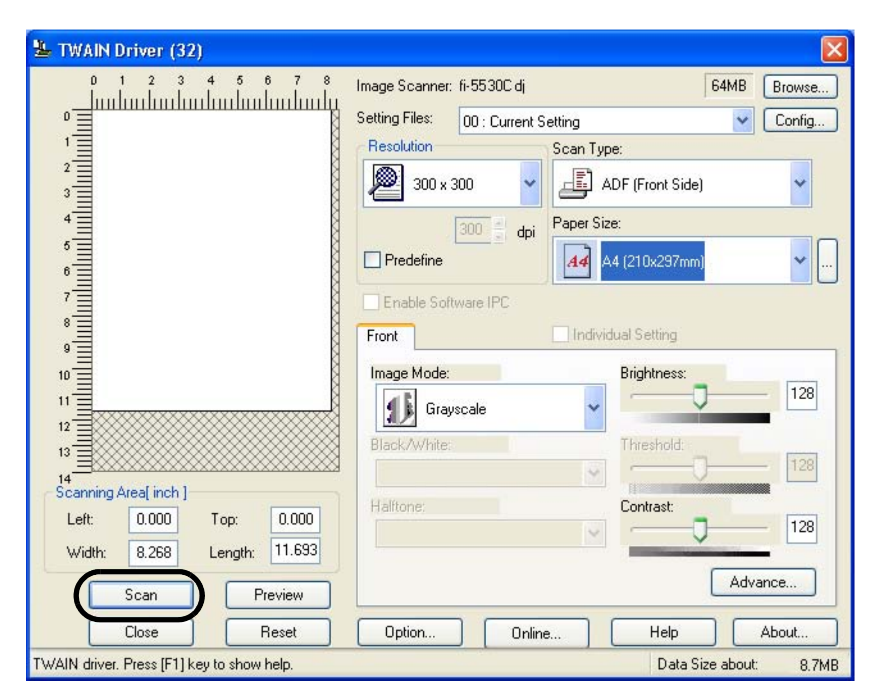
The image may be generated in poor quality when scanning with the default settings.

It is recommended to change the settings with the following procedure.

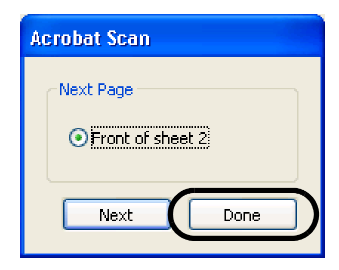
1. Uncheck "Recognize Text Using OCR".
2. Click the [Image Settings...] button.
   The "Image Settings" dialog box appears.
3. Change the following items as showing below.
   - Color/Grayscale: none
   - Monochrome: JBIG2 or CCITT Group 4
   - Background removal: Off
   - Edge shadow removal: Off

⇒ The [TWAIN driver] dialogbox appears.

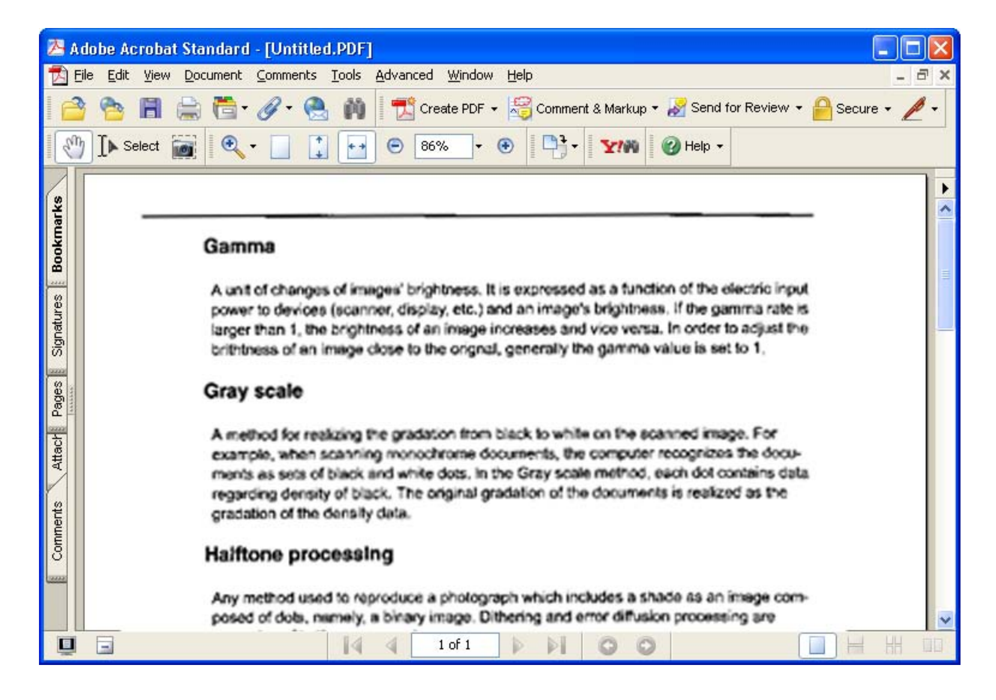
5. Select the scan resolution, document size, etc., and click the [Scan] button.



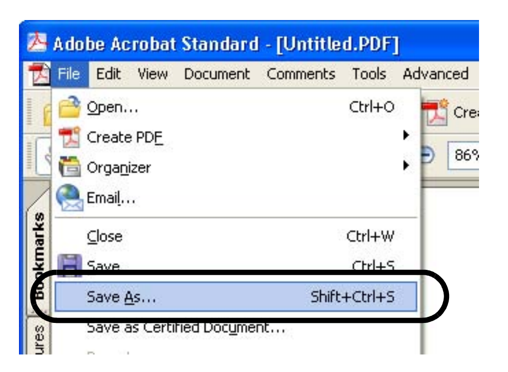
6. To end scanning, click the [Done] button.



⇒ The scanned image is displayed.



7. Select [Save as...] or [Save] from the [File] menu to save the scanned image.

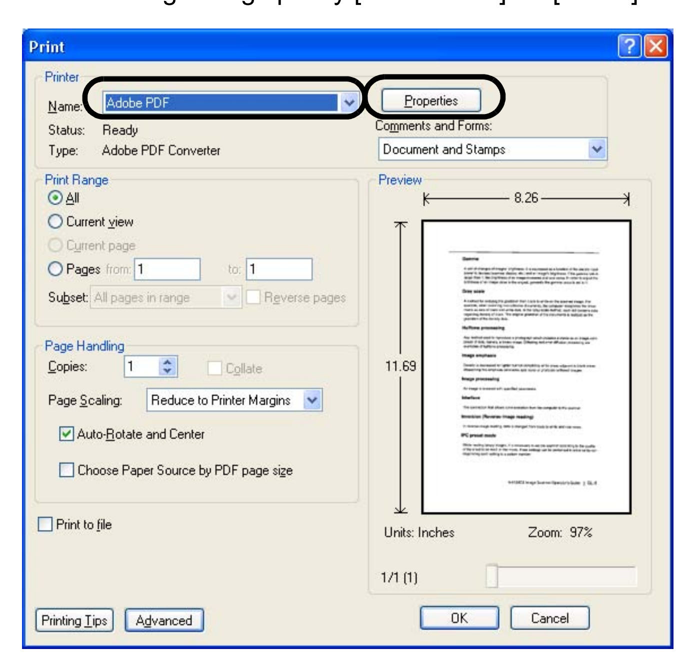


For the details on Adobe Acrobat operations, refer to the Adobe Acrobat manual and Help.

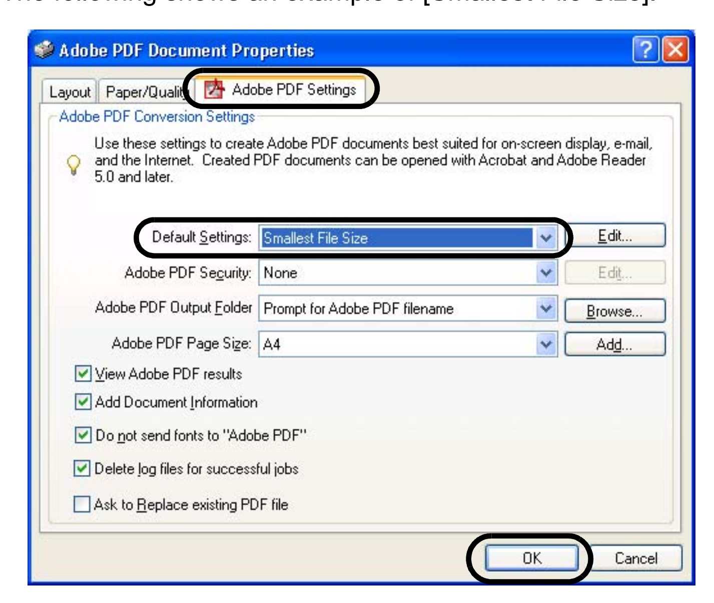


If you save scanned images by this procedure, the file size may increase greatly. For reducing the file size, follow the procedure below. (It may take much more time than the usual saving procedure.)

1. Select [File] - [Print...]
2. On the following dialog specify [Adobe PDF] for [Name]



3. Click the [Properties] button.
4. Click the [Adobe PDF Settings] tab.
5. Select one from [Default Settings].
   The following shows an example of [Smallest File Size].

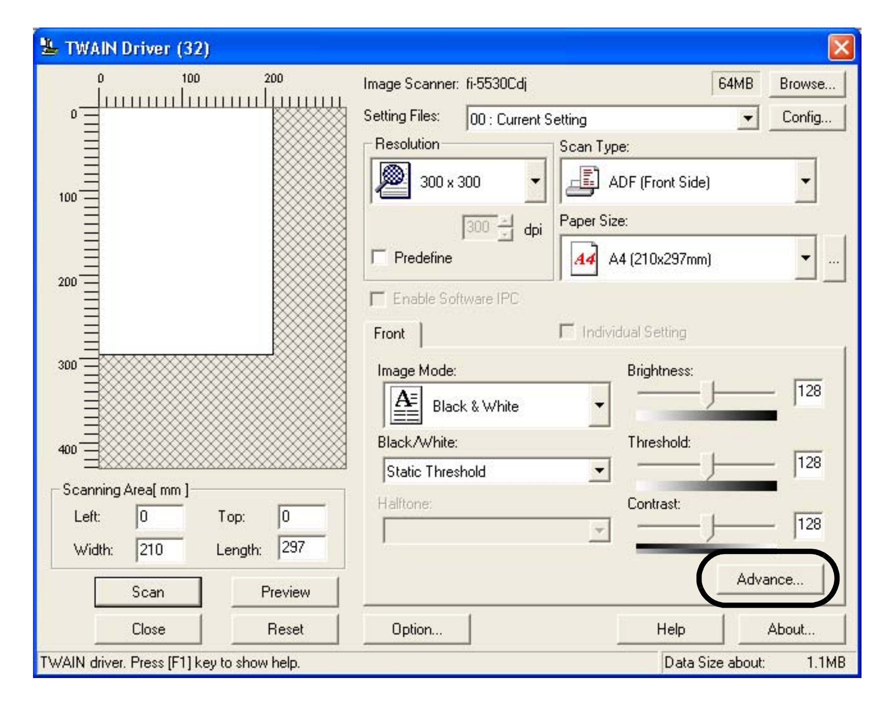


6. Click [OK].
7. Enter a file name and click the [Save] button on the [Save PDF File As] dialogbox.

2.6 Excluding a Color from the Image (dropout color)

A selected color (primary colors: red, green or blue) can be removed (dropped out) from the scanned image data. For example, if the document contains black text in a green frame, you can set the scanner to read only the text and eliminate (drop out) the green frame.
To set the scanner to drop out a color, change the settings in the [TWAIN Driver] dialogbox before scanning.
The following shows the procedure for changing the settings in this dialogbox.

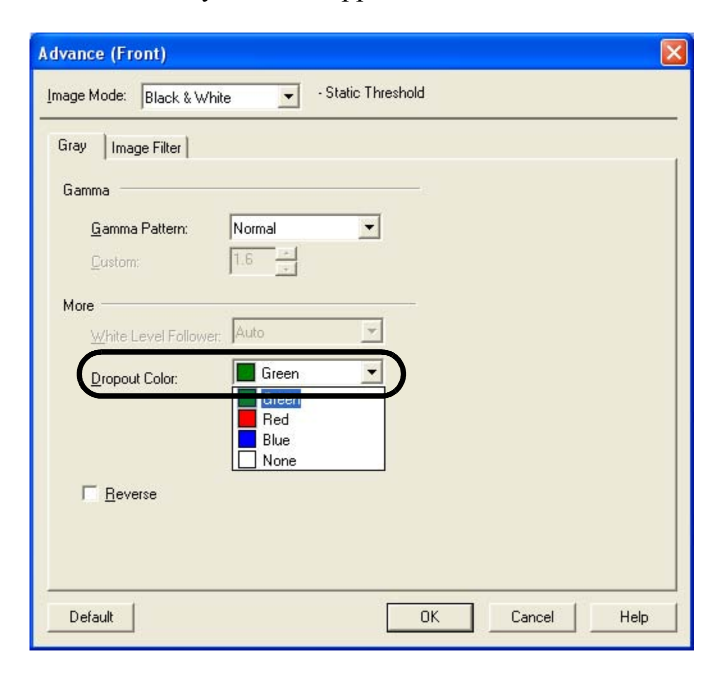
1. Click the [Advance...] button in the [TWAIN Driver] dialogbox.



⇒ The [Advance] dialogbox appears.

2. Select the color to be dropped out from [Dropout Color] under [More].

For example, if the document contains black text in green frame, select [Green] so that the scanner only reads the text and eliminates the frames.
If you do not wish to have any colors dropped out select "None".



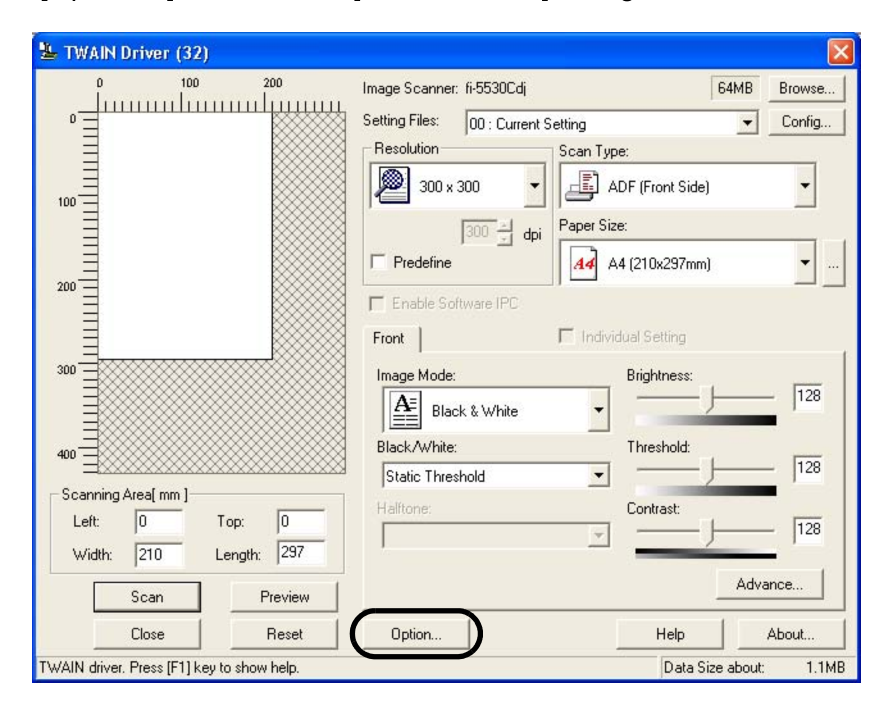
3. Click the [OK] button.

The [TWAIN Driver] dialogbox will be redisplayed. Then, scan the documents by the dialogbox.

2.7 Skipping blank Pages

Change settings in the [TWAIN Driver] dialogbox for skipping blank pages at scanning documents.

1. Click the [Option ...] button in the [TWAIN Driver] dialogbox.

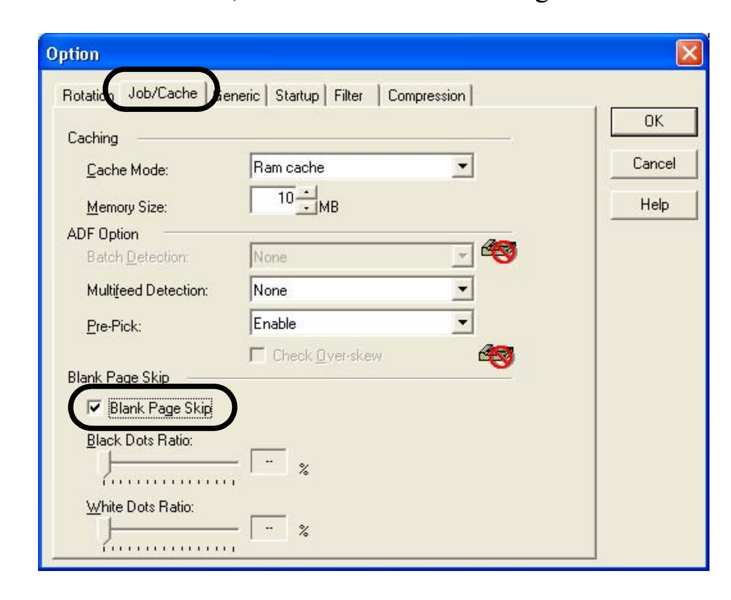


⇒ The [Option] dialogbox appears.

2. Click the [Job/Cache] tab

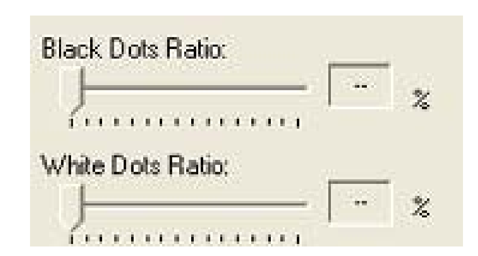
3. Check the [Blank Page Skip] box.

   When the check box is marked, "Cache Mode" will change to “Ram cache”.



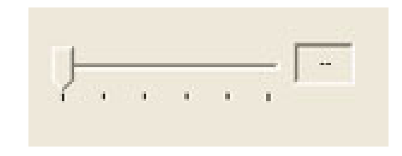
4. With the slider control under [Blank Page Skip], specify the Blank Page Skip degree.

<In Binary/Halftone mode>



For white pages, use the [Black Dots Ratio] slider bar to set the skip condition. For black pages, use the [White Dots Ratio] scroll bar to set the skip condition.
The value displayed to the right of the scroll bar displays the noise ratio(*1). If a scanned document is below this value, it is recognized as a blank page. The setting range is OFF(- -) and 0.2% to 3.0% (in increments of 0.2%).
*1: Ratio of black dots included in the scanning area. (for white pages)

<In Color/Grayscale mode>

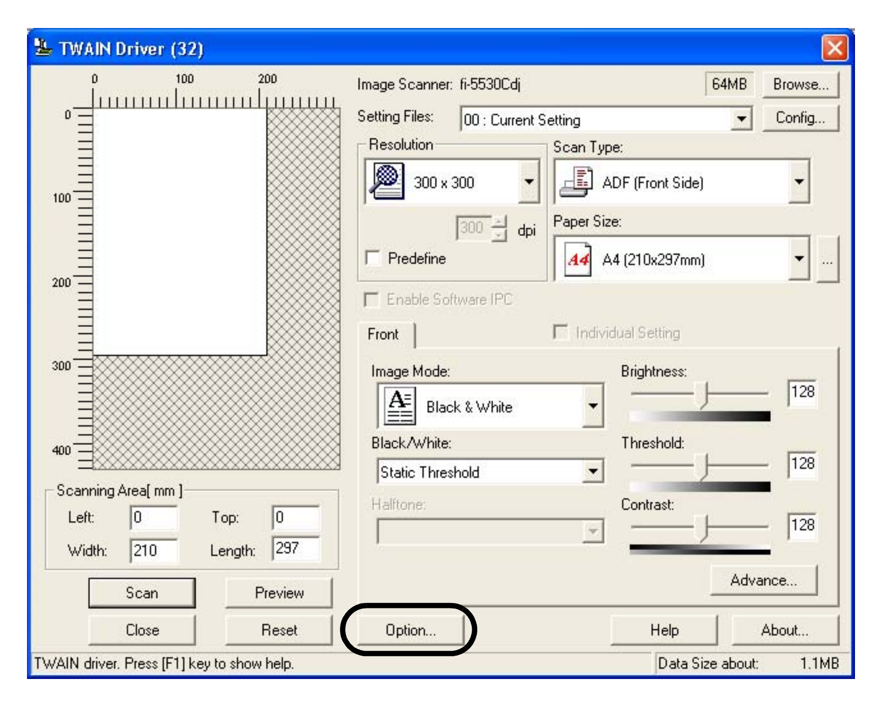


Use the slider bar to set the skip condition in five stages from 1 to 5. To make the blank pages easy to skip, increase the value of the setting.

2.8 Detecting Multi Feeds

"Multi feed" is an error that occurs when two or more sheets are accidentally fed into the ADF at the same time. You can set the scanner to display an error message when the scanner detects a multi feed.
To set conditions for the multi feed detection, change the settings in the [TWAIN Driver] dialogbox.
The following shows the procedure for changing the settings in the dialogbox.

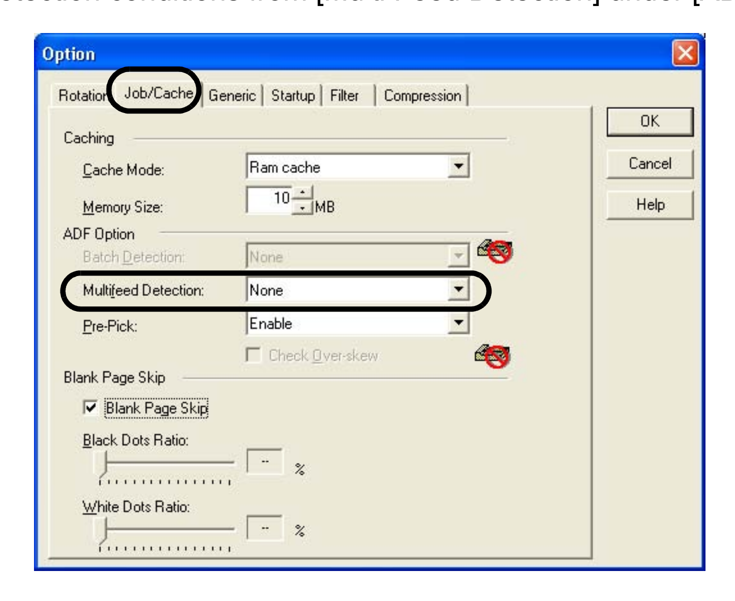
1. Click the [Option...] button in the [TWAIN Driver] dialogbox.



⇒ The [Option] dialogbox appears.

2. Click the [Job/Cache] tab.

3. Select the detection conditions from [Multi Feed Detection] under [ADF Option].



The following are the detection conditions

None	Multi feed detection is not performed
Check overlapping	The scanner monitors the overlapping of documents. The scanner detects a multi feed by differences in ultrasonic propagation.
Check length	The scanner monitors the length of documents. The scanner detects a multi feed by differences in the document length.
Check overlapping and length	The scanner monitors both document overlapping and length to detect multi feeds.

Furthermore, refer to "6.5 Multi feed Detection Conditions" on page 108 for detailed information about the document for multi feed detection.

4. Click the [OK] button.

The display returns to the [TWAIN Driver] dialogbox. Then, scan the documents by the dialogbox.

■ To Specify the Area for Multi feed Detection

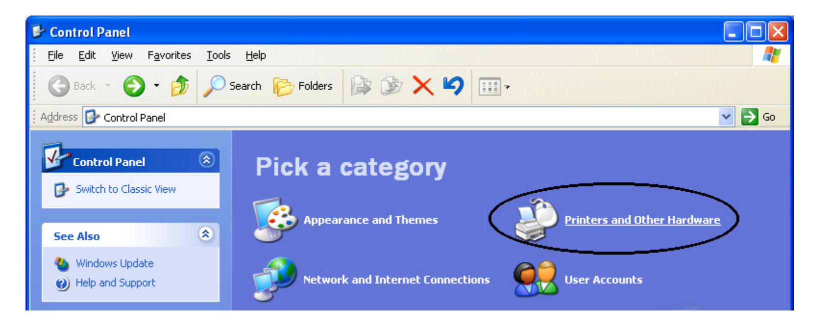
Normally multi feed detection will monitor paper overlap over the central column (width: 35mm) of the document to be scanned. This will cause certain documents, such as resumes and postcards with photographs or stamps, to be accidently recognized as being multi fed. When scanning these kinds of documents, you can specify an exact detection or non-detection area (excluding the area containing the photograph or stamp) to prevent mis-detections. The procedure is as follows.

1. Open Scanner's Properties.

•For Windows 98 / Windows Me / Windows 2000 / Windows XP

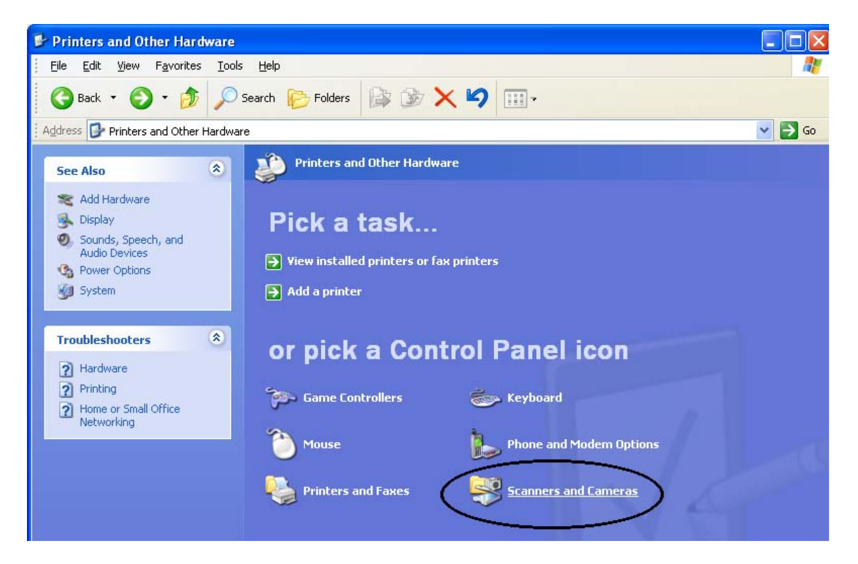
1) When turning on the power, check that the scanner is connected to your PC.Refer to "2.2 Connecting the Scanner to a PC" in fi-5530C Getting Started on the CD-ROM for information about connecting the scanner to your personal computer.

2) Double click the "Printer and Other Hardware" icon on the Control panel of your PC.



⇒ The [Printer and Other Hardware] window appears.

3) On the [Printers and Other Hardware] window, double click the [Scanners and Cameras] icon.



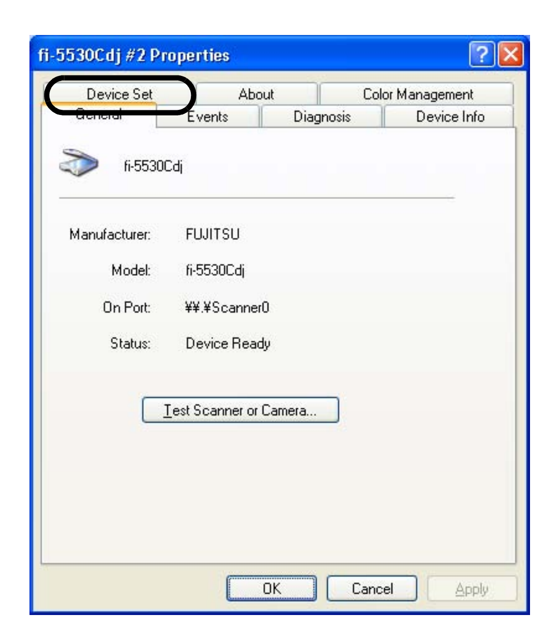
⇒ The [Scanners and Cameras] window is displayed.

4) Right click the "fi-5530Cdj", and select [Properties] from the menu.



⇒ The [fi-5530Cdj Properties] dialogbox appears.

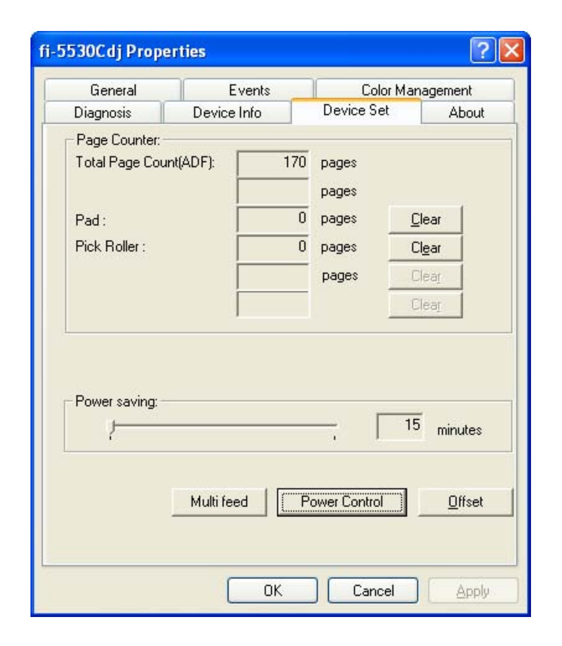
5) Click the "Device Set" tab.



2

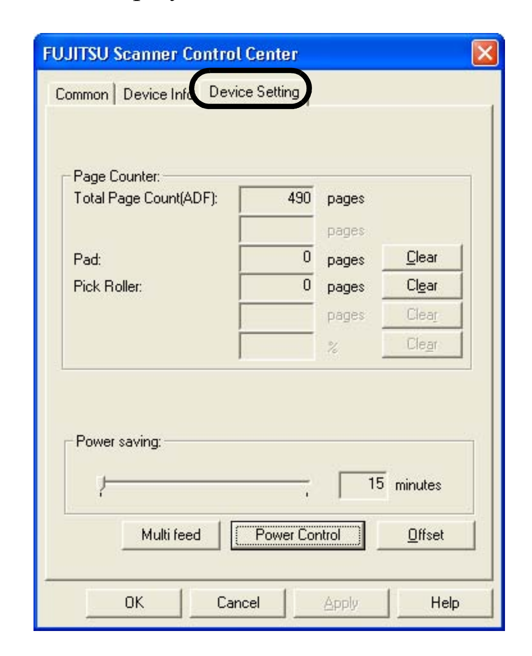
SCANNING VARIOUS TYPES OF DOCUMENTS

⇒ The following screen appears.



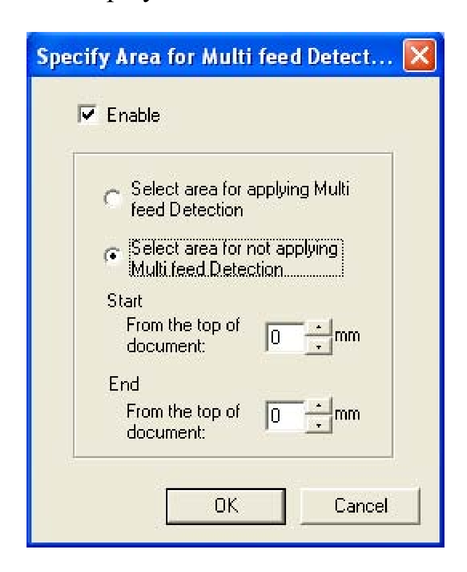
•For Windows 95 / Windows NT 4.0

1) When turning on the power, check that the scanner is connected to your PC.
2) Right click the "FUJITSU Scanner Control Center" icon displayed in the task tray, then select "Option".
3) Click "Device Setting" tab.
   ⇒ The following screen is displayed.



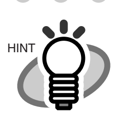
2. Click the [Multi feed] button.

⇒ The following screen is displayed.



3. Specify the settings on the "Area for Multi feed Detection..." screen.

1) Mark the "Enable" check box.



- You can select an area meassured from the top of the document, for which the multi feed detection will be conducted (or not).
- If you do not mark the "Enabled" checkbox, the settings for "Select Area to enable Multi feed Detection" / "Select Area to disable Multi feed Detection" will not be available. In this case, multi feed detection is conducted over the central column (width: 35mm) of the document to be scanned. (Refer to "Multi feed Detection Conditions" on page 108)

2) Select if the Multi Feed Detection shall be applied or not for a set area.

- To specify an area for which the Multi Feed Detection will be conducted:
  ⇒ check "Select area for applying Multi feed Detection."
- To specify an area for which the Multi Feed Detection will NOT be conducted:
  ⇒ check "Select area for not applying Multi feed Detection."

3) Specify the "Start" of the area.
Enter the position from where the detection shall be started, meassured from the document's top edge.
(Possible values: 0 through 510mm; value of the even number)

4) Specify the "End" of the area.
Enter the position where the detection shall end, meassured from the document's top edge. (Possible values: 0 through 510mm; value of the even number)



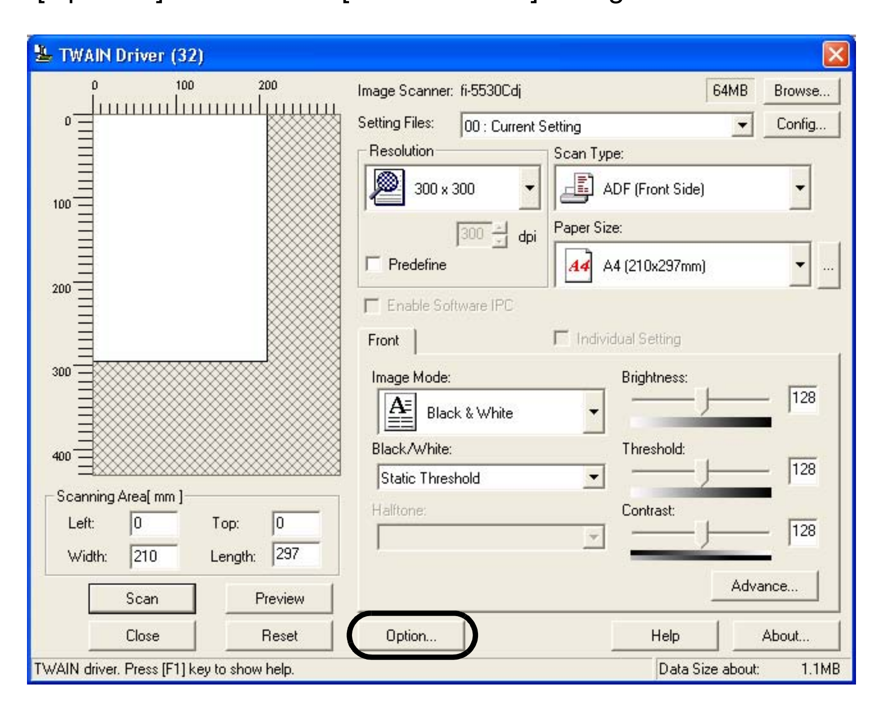
The value for "End" must be larger than the value for "Start."

2.9 Correcting skewed Documents

You can set the scanner so that skew of documents are detected and corrected automatically when skewed documents are fed into the ADF.
Change the setting in the [TWAIN Driver] dialogbox to enable this function.

The following shows the procedure for changing the setting in the dialogbox.

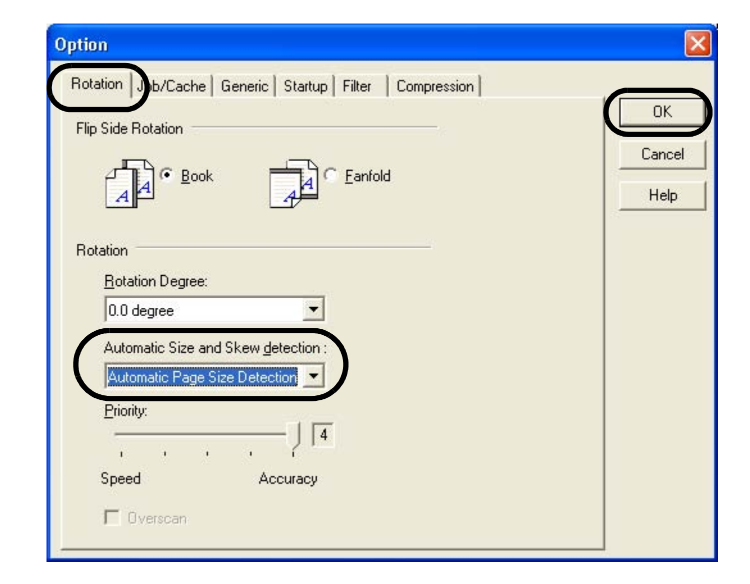
1. Click the [Option...] button in the [TWAIN Driver] dialogbox.



⇒ The dialogbox appears.

2. Click the [Rotation] tab.

3. Select the [Automatic Page Size Detection] from the [Automatic Size and Skew Detection] menu.

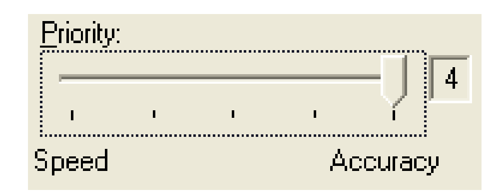


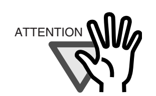
4. Click the [OK] button.

The display returns to the scanninig operation [TWAIN Driver] dialogbox.
Then, scan the documents by the dialogbox.



With [Priority] slider control, you can change accuracy of Automatic Page Size Detection. Move the slider to the right when improving the detection accuracy. (Note that higher accuracy setting requires much more processing time and scanning speed becomes slower.)





When using either of the following documents, the Automatic page size detection may not function correctly.

1. Paper of weight 52g/m^2 or less.
2. Not rectangular documents.
3. Documents which their edges are filled with black margins.

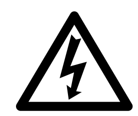
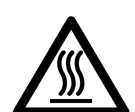
Chapter 3

DAILY CARE

This chapter describes how to clean the scanner.

3



The glass surface inside the ADF becomes hot during the operation of the scanner. Before you start to clean the inner parts of the scanner, disconnect the AC adapter from the power outlet, and wait at least 15 minutes.
Do not turn off the scanner when you clean the Feed and Eject Rollers.

3.1 Cleaning Materials and Locations requiring Cleaning

■ Cleaning Materials

Cleaning Materials	Parts Number	Remarks
Cleaner F1 (or isopropyl alcohol)	CA99501-0013	1 bottle Moisten a cloth with this fluid and wipe the scanner clean.
Lint-free dry cloth	- Commercially available one	

For details about the cleaning materials, contact the FUJITSU scanner dealer where you purchased the scanner.

■ Locations and Cycle for Cleaning

The following table shows the standard cleaning cycle for each location.

Part to clean	Standard Cleaning Cycle
Pad ASSY	Clean these parts after every 5,000 scans.
Pick roller	
Feed rollers	
Plastic rollers	
Eject rollers	
Sheet guides	
Glass	
Ultra sonic sensor	



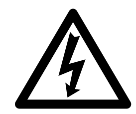
The scanner must be cleaned more frequently if you scan any of the following type of sheets:

- Documents of coated paper
- Documents that are almost completely covered with printed text or graphics
- Chemically treated documents such as carbonless paper
- Documents containing a large amount of calcium carbonate
- Documents written by pencil
- Documents on which the toner is not fused sufficiently

3.2 Cleaning the ADF

As a guideline, clean the ADF after every 5,000 scans. Note that this guideline varies according to the type of documents you are scanning. For example, it may be necessary to clean the ADF more frequently if documents are scanned when the toner is not sufficiently fixed on the printout.



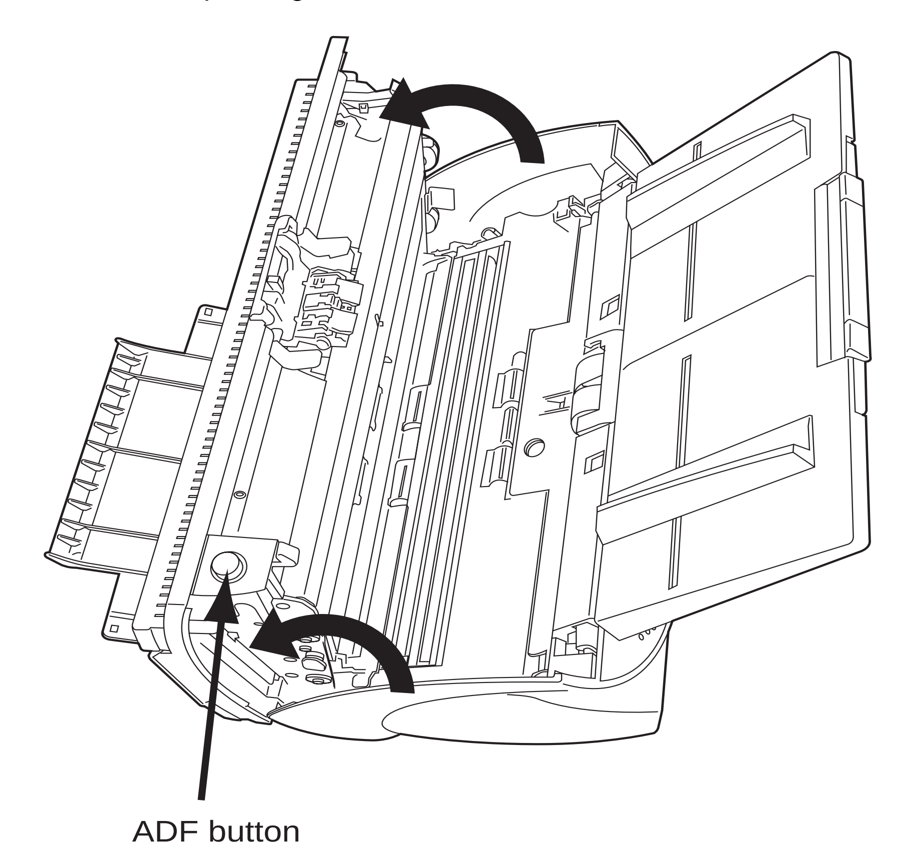




The glass surface inside the ADF becomes hot during the operation of the scanner. Before you start to clean the inner parts of the scanner, disconnect the AC adapter from the power outlet, and wait at least 15 minutes.
Do not turn off the scanner when you clean the Feed and Eject Rollers.

■ Cleaning Method

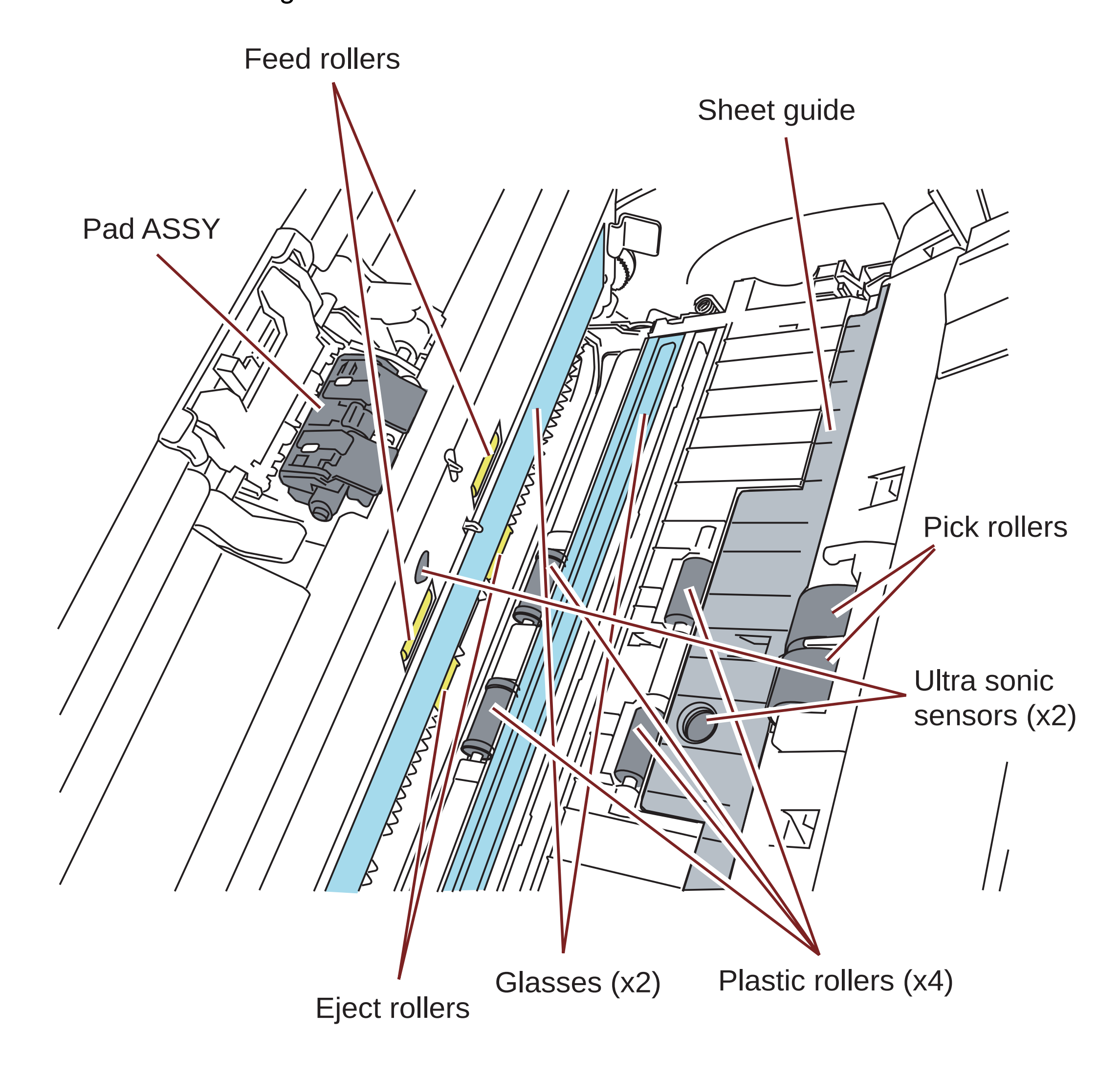
1. Open the ADF while pushing down the ADF button.



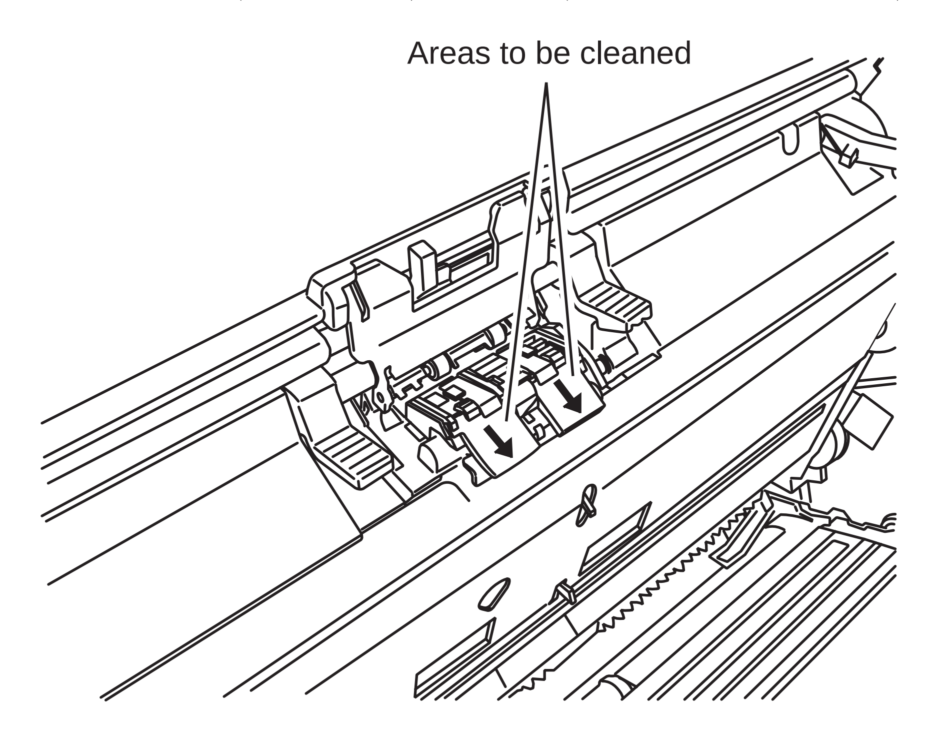
⚠ CAUTION

Be careful, the ADF cover may close and pinch your fingers.

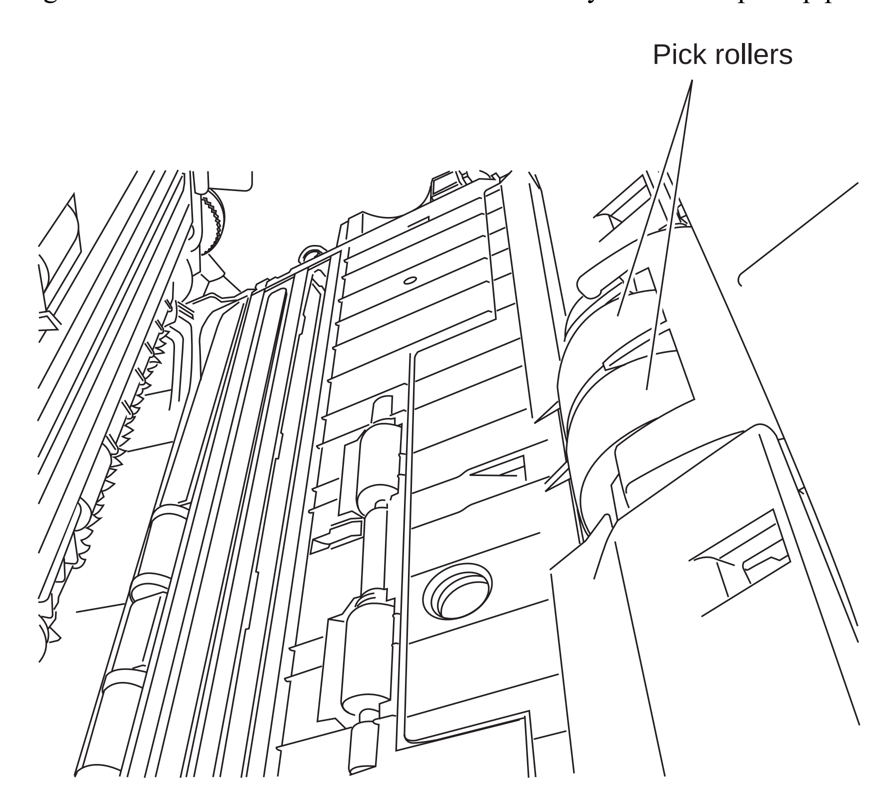
2. Clean the following locations with a lint-free cloth moistened with the Cleaner F1.



- Pad ASSY.
  Clean the Pad ASSY (rubber surface) downward (in the direction of the arrow).



- Pick rollers
  Clean the Pick rollers lightly, not to roughen the rollers' surface. Take particular care in cleaning these rollers as black debris on them advesely affects the pickup performance.

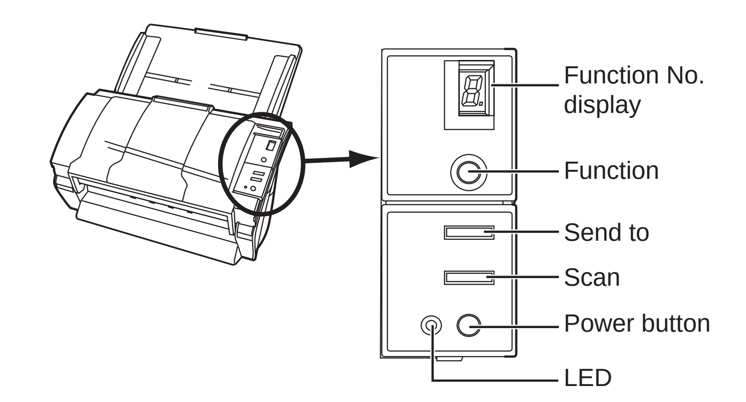


- Feed and Eject rollers

   1) Open the ADF when the indication of the Function Number display is not "P" or "0".
   If you open the ADF when the indication of the Function Number display is "P" or "0", the Feed rollers / Eject rollers will not rotate even you perform the operation of step 2) below.

   2) Simultaneously hold down the "Send to" and "Scan" buttons on the operator panel.
   The Feed rollers / Eject rollers start to rotate slowly.

   3) Hold a soft, dry cloth moistened with cleaning fluid against the surface of the rotating Feed rollers / Eject rollers so that it lightly cleans the surface of the rollers.
   As a guideline, 7 presses of the "Send to" and "Scan" buttons make the Feed rollers /Eject rollers to rotate one full turn.



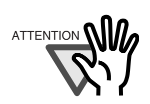


In step 2), the Feed rollers turn at the same time while rotating the Eject rollers.
When cleaning the Eject rollers, be careful not to touch the Feed rollers and vice versa.

- Plastic rollers
  Clean the Plastic rollers lightly, not to roughen the roller surfaces. Take particular care in cleaning these rollers as black debris on them adeversely affects the pickup performance. Be careful not to damage the sponges beside the rollers.

- Sheet guides
  Clean lightly.

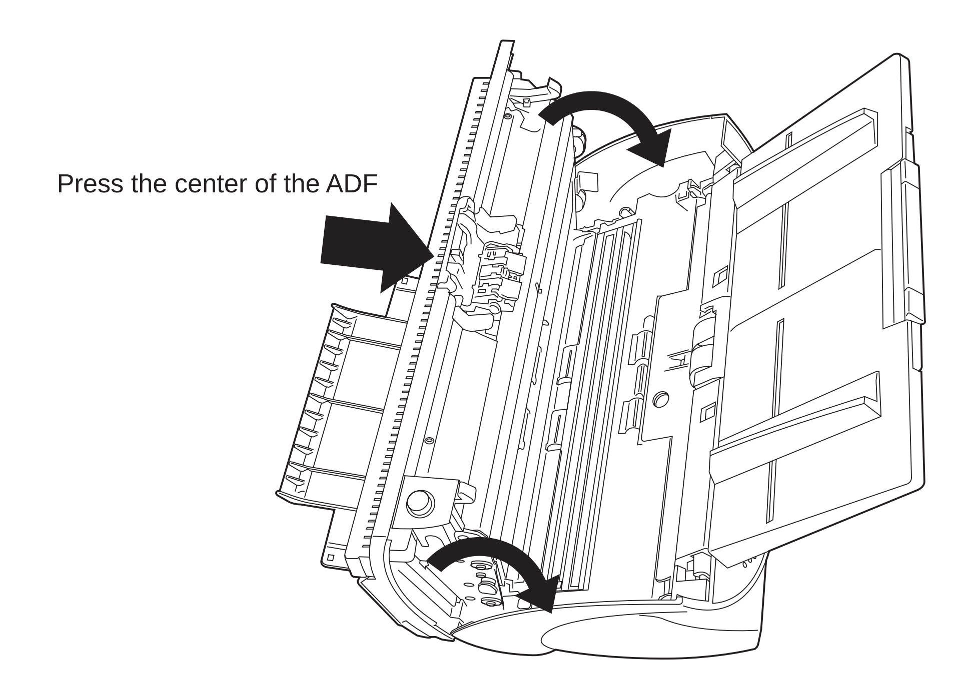
- Glass
  Clean lightly.

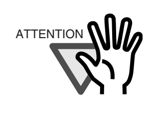


If the glass is dirty, vertical black streaks may apper in the scanned images.

- Ultra sonic sensor
  Clean lightly with a dry cloth.

3. Push in the center of the ADF to return it to its original position, until the ADF button locks.





Close the ADF until it clicks. Paper jams or feeding errors may occur if the ADF is not closed completely.

Chapter 4

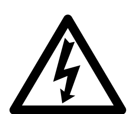
REPLACING CONSUMABLES

This chapter describes how to replace scanner consumables.

In this chapter Windows XP screenshots are illustrated.
The screens and operations may differ slightly if the OS that you are using is not Windows XP.
Also, when FUJITSU TWAIN32 is updated the screens and operations noted in this chapter will differ slightly.

4





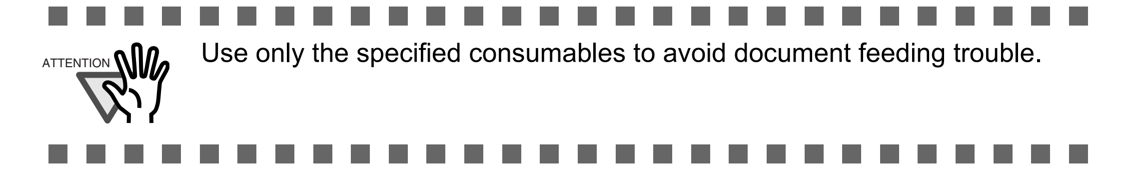
When operating the scanner, the ADF's inside glass becomes very hot.
Before you replace the consumables, turn off the power and unplug the AC adapter from the outlet. Wait for at least 15 minutes.

4.1 Consumable and Replacement Cycle

The following table shows the specifications of consumables and guidelines for the replacement cycle.

Description	Parts Number	Standard Replacement Cycle
Pad ASSY	PA03334-0002	After 100,000 scans or one year
Pick roller	PA03334-0001	After 200,000 sheets or one year

The replacement cycles above are rough guidelines for the case of using A4/Letter woodfree or wood containing paper 64 g/m^2 (17 lb). This cycle varies according to the type of the scanned paper and how frequently the scanner is used and cleaned.



Use only the specified consumables to avoid document feeding trouble.

■ Guidelines for Consumable Replacement Cycle

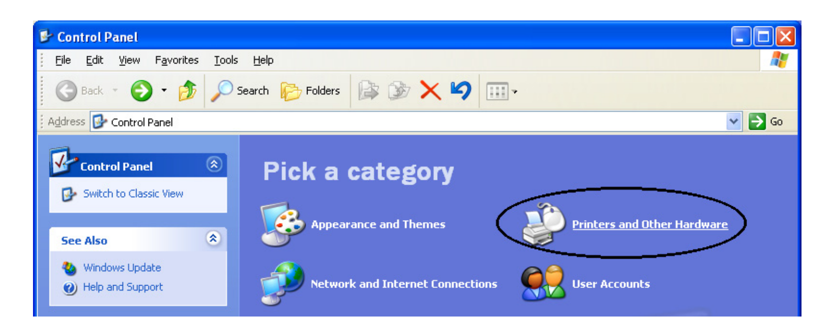
With this product, you can learn how many times the consumables are used so that you can estimate the right timing for the replacement.

- **For Windows 98 / Windows Me / Windows 2000 / Windows XP**

1. When turning on the power, check that the scanner is connected to your PC.

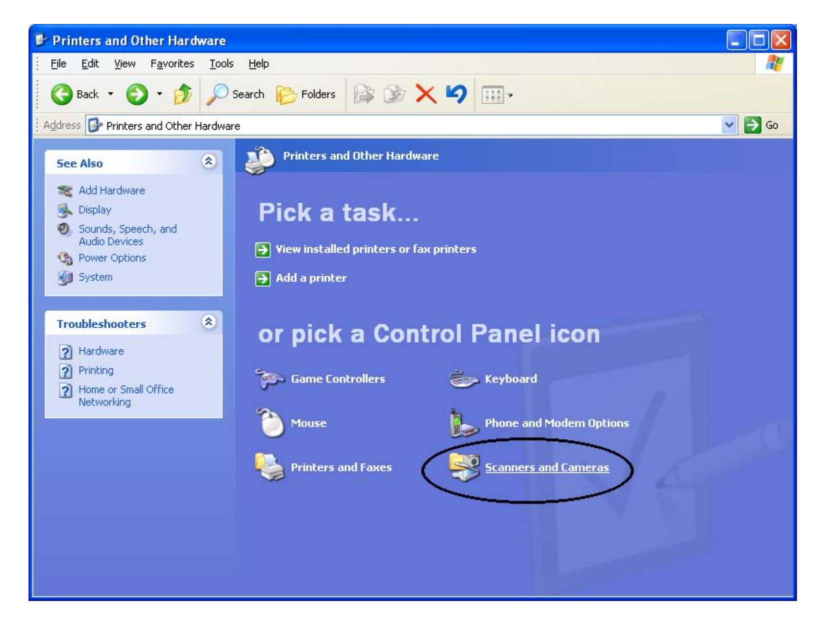
   Refer to "2.2 Connecting the Scanner to a PC" in fi-5530C Getting Started on the CD-ROM for information about connecting the scanner to your personal computer.

2. Double click the "Printer and Other Hardware" icon on the Control panel of your PC.



⇒ The [Printer and Other Hardware] window appears.

3. On the [Printers and Other Hardware] window, double click the [Scanners and Cameras] icon.

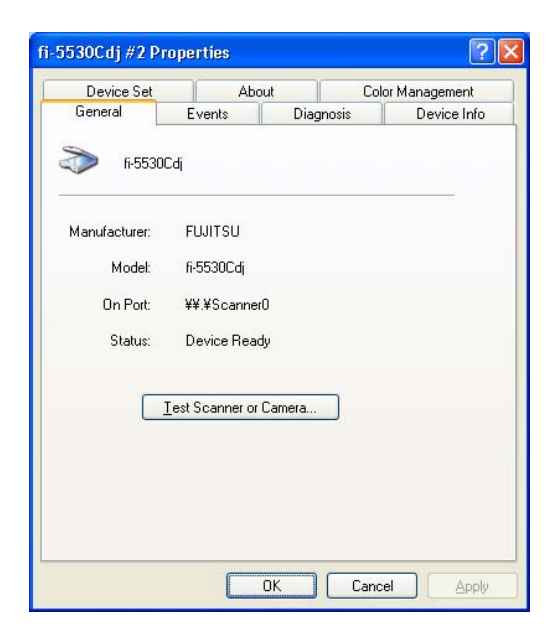


⇒ The [Scanners and Cameras] window is displayed.

4. Right click the "fi-5530Cdj", and select [Properties] from the menu.

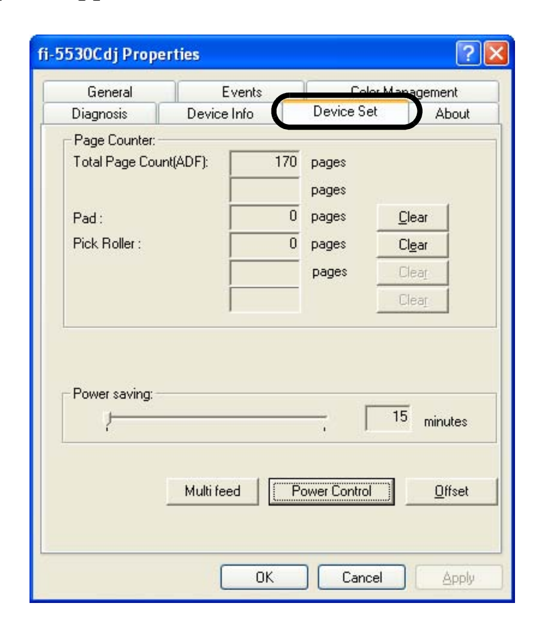


⇒ The [fi-5530Cdj Properties] dialogbox appears.



5. Click the "Device Set" tab.

⇒ The following panel appears.



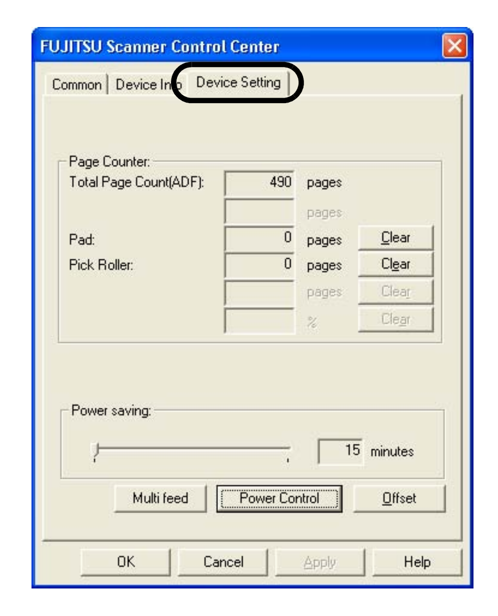
You can confirm the following information on this panel:

- Total number of scans
- Pad counter (approximate number of scans after resetting the pad counter)
- Pick roller counter (approximate number of scans after resetting the Pick roller counter)

- **For Windows 95 / Windows NT 4.0**

1. When turning on the power, check that the scanner is connected to your PC.
2. Right click the "FUJITSU Scanner Control Center" icon displayed in the task tray, then select "Option".
3. Click "Device Setting" tab.

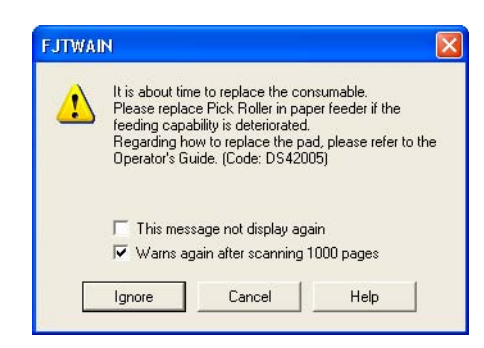
⇒ The following screen is displayed.



You can confirm the following information on this panel:

- Total number of scans
- Pad counter (approximate number of scans after resetting the pad counter)
- Pick roller counter (approximate number of scans after resetting the Pick roller counter)

The following message may appear while using the scanner:

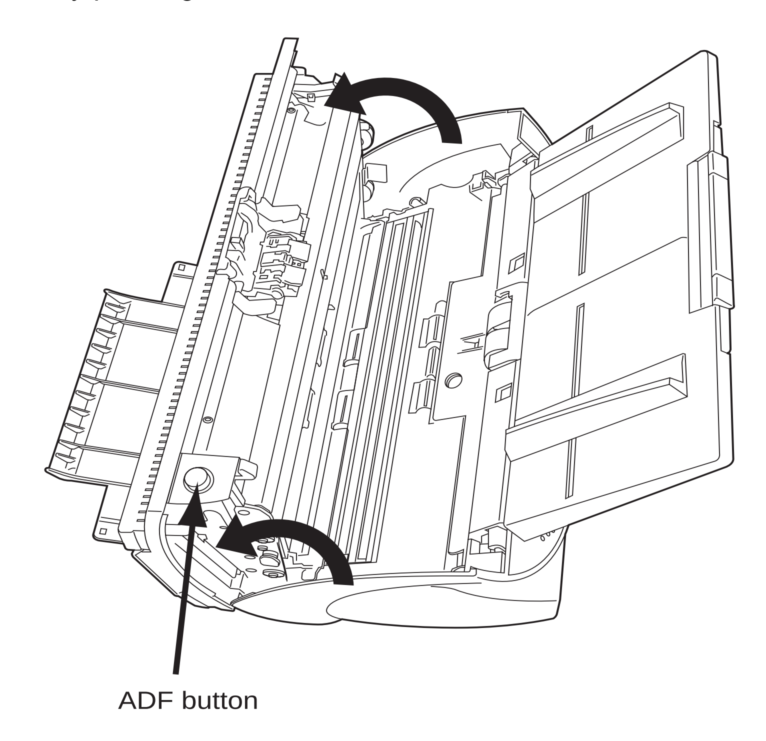


Replace consumables when this message is displayed.
After clicking the [Ignore] button, this message will disappear and scanning will continue.
Please replace the consumable as soon as possible.
As a default, this message appears again after 1,000 scans. If you do not wish this message to display, click the [this message not display again].
To stop scanning and replace the consumable, click the [Cancel] button.

4.2 Replacing the Pad ASSY

1. Remove all documents from the ADF paper chute.

2. Open the ADF by pushing down the ADF button.

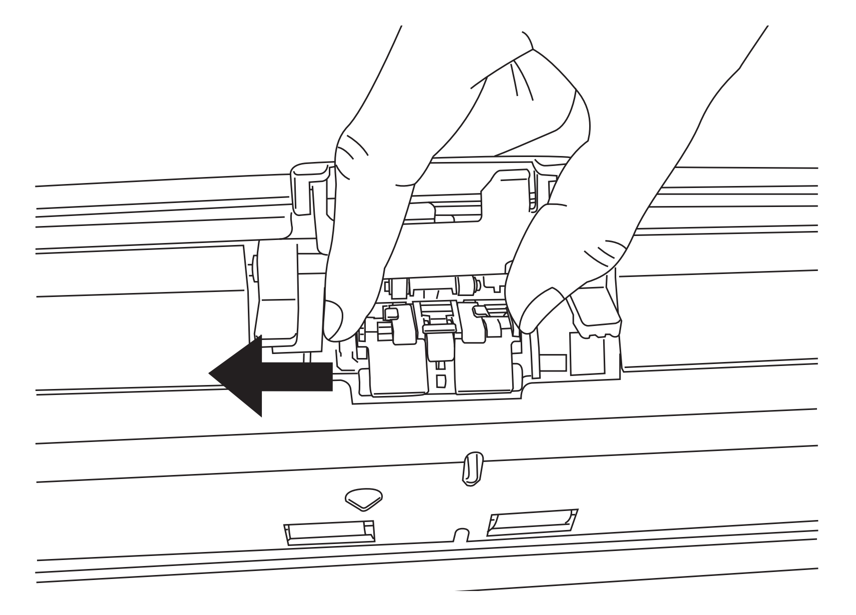




Be careful, the ADF cover may close and pinch your fingers.

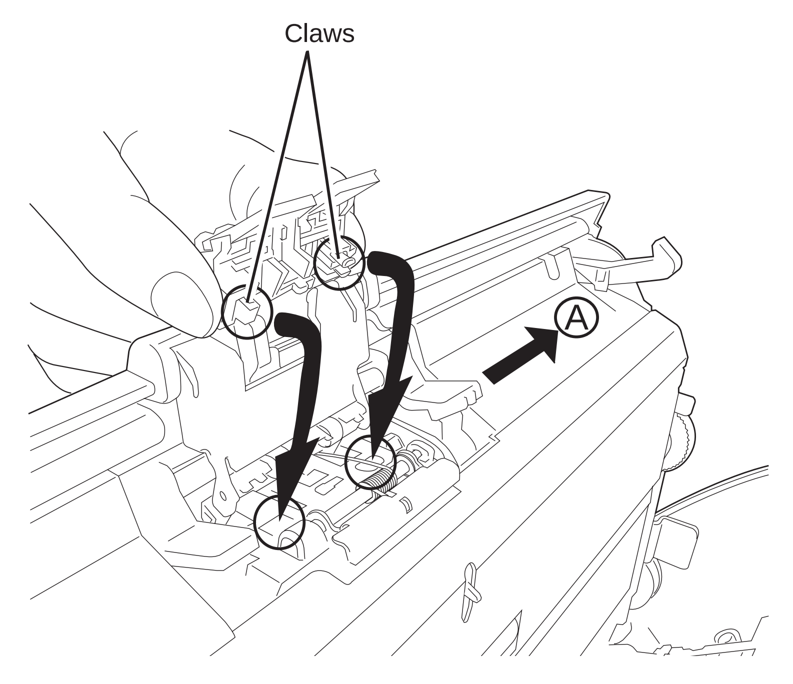
3. Remove the Pad ASSY.

   Pinch the Pad ASSY and slide it to the direction of the arrow and remove it.



4. Attach new Pad ASSY.

Insert the claws of the Pad ASSY into the holes on the ADF.

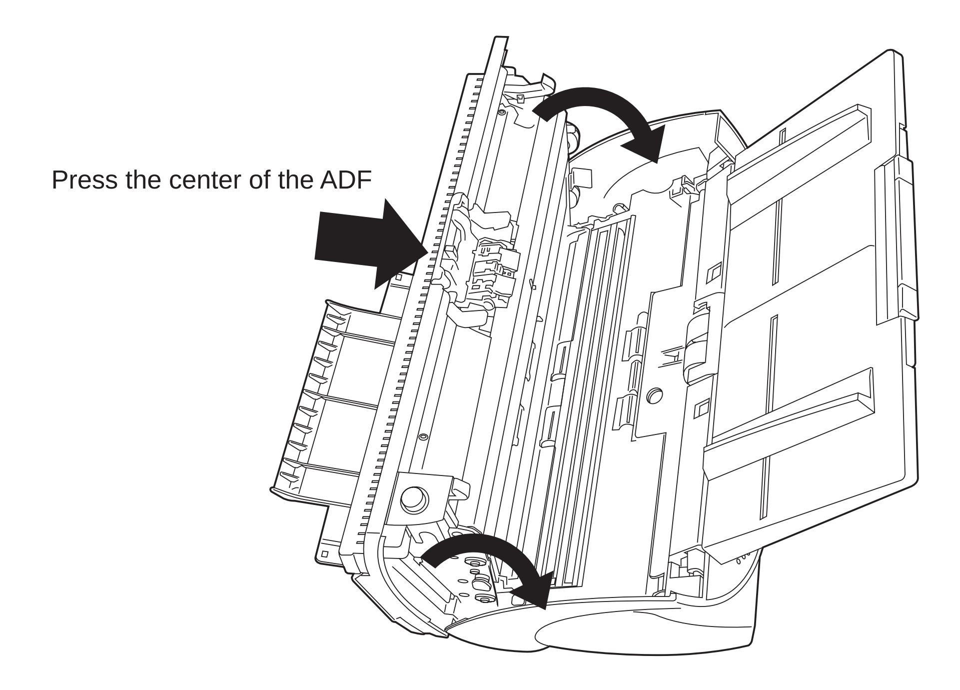


Pressing down the Pad ASSY and slide it to direction "A" as shown in the illustration above.



Make sure that the Pad ASSY is firmly attached. When the Pad ASSY is not correctly attached, document jams or other feeding errors may occur.

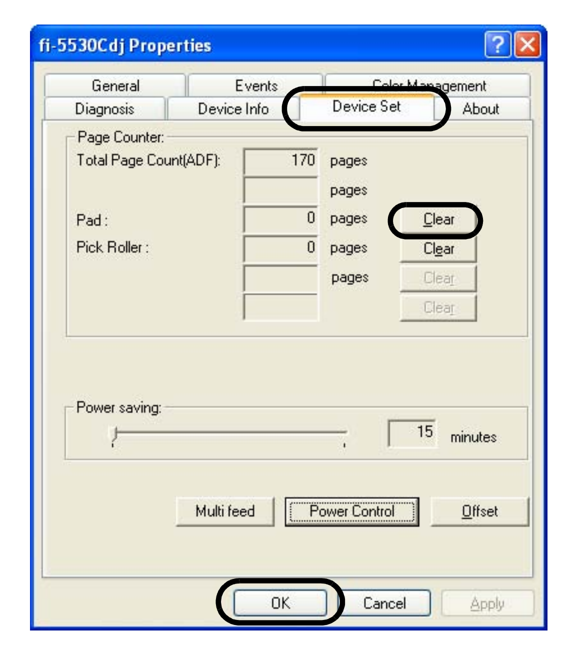
5. Push in the center of the ADF to close it until the ADF button is locked.



6. Reset the pad counter.

- For Windows 98 / Windows Me / Windows 2000 /Windows XP

1) Check that the scanner is connected to your PC and turn on the scanner.
2) Open the [Scanners and Cameras] from the control panel of your PC.
3) Open the [Properties] of [fi-5530Cdj] from the [Scanners and Cameras].
   ⇒ The [Properties of fi-5530Cdj] dialogbox appears.
4) Click the "Device Set" tab.
   ⇒ The following window appears.



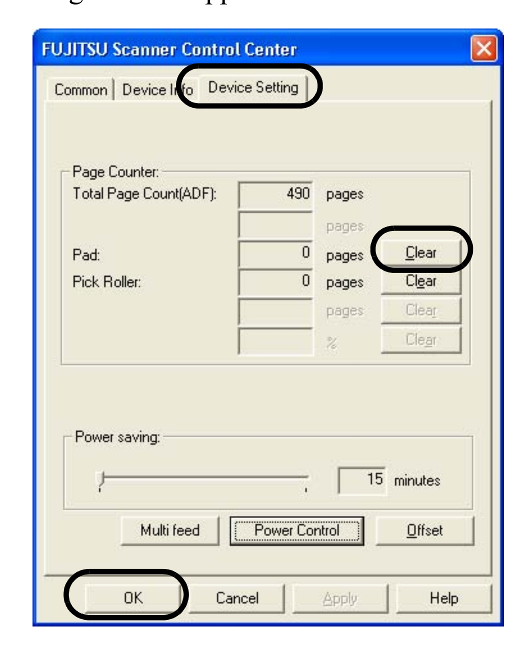
5) After clicking the [Clear] button beside "Pad" in "Page Counter", click the [OK] button.
   ⇒ The following message is displayed.



Click the [OK] button.
The Pad counter returns to "0".

- For Windows 95 / Windows NT 4.0

1) When turning on the power, check that the scanner is connected to your PC.
2) Right click the [FUJITSU Scanner Control Center] icon in the task tray, then select [Option].
3) Click the "Device Setting" tab.
⇒ The following window appears.



4) After clicking the [Clear] button besides "Pad" in "Page Counter", click the [OK] button.
⇒ The following message is displayed.

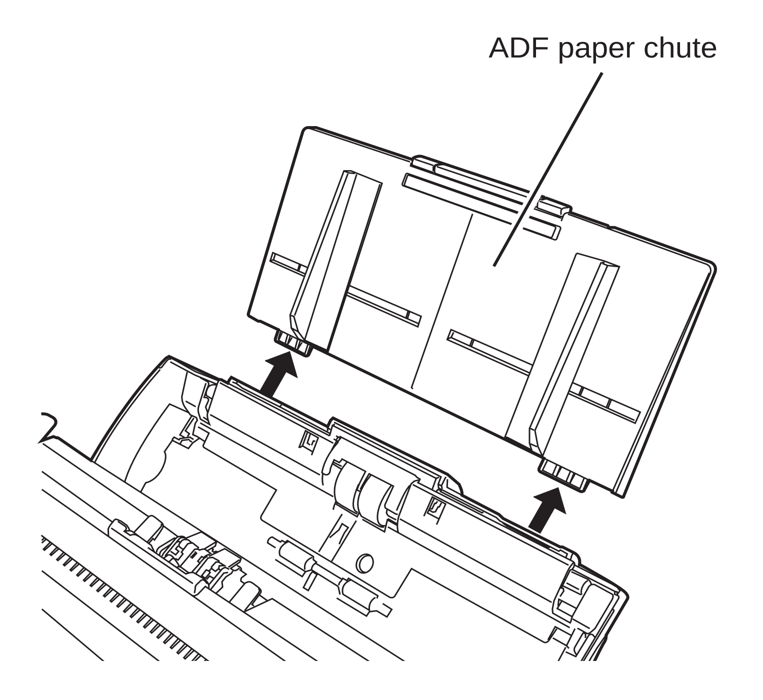


Click the [OK] button.
The Pad counter returns to "0".

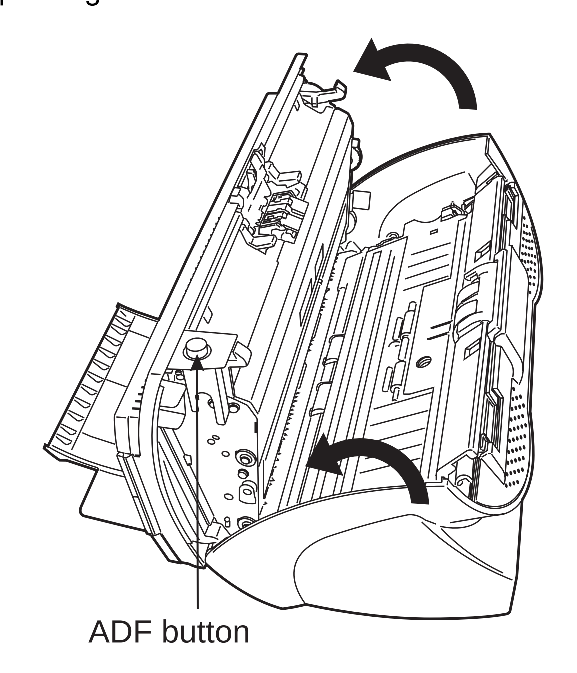
4.3 Replacing the Pick Roller

1. Remove all documents from the ADF paper chute.

2. Remove the ADF paper chute.



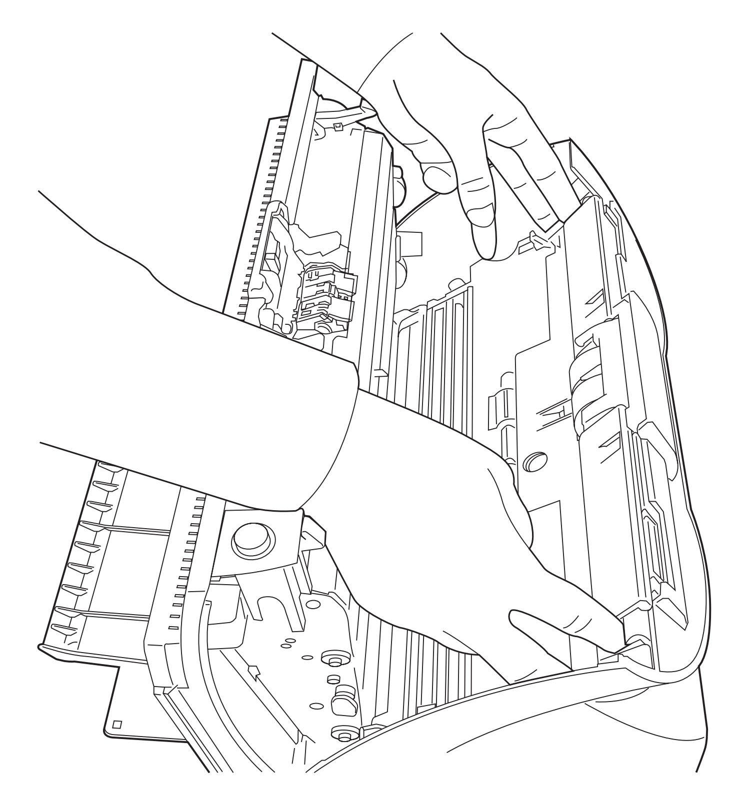
3. Open the ADF by pushing down the ADF button.



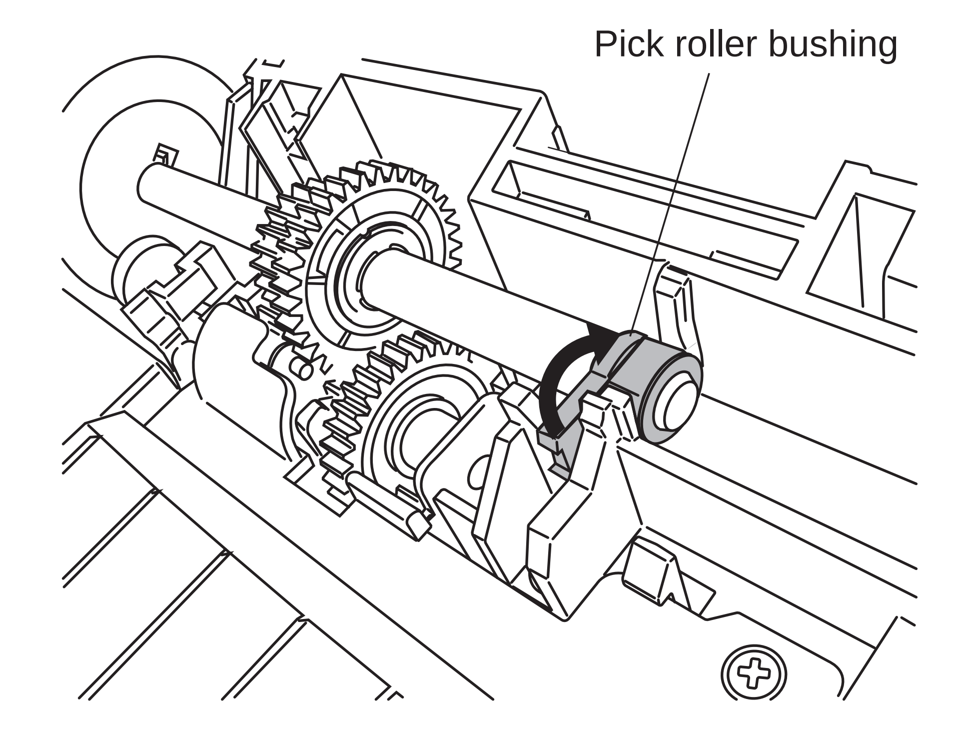
⚠ CAUTION	Be careful, the ADF cover may close and pinch your fingers.

4. Remove the Pick roller from the scanner.

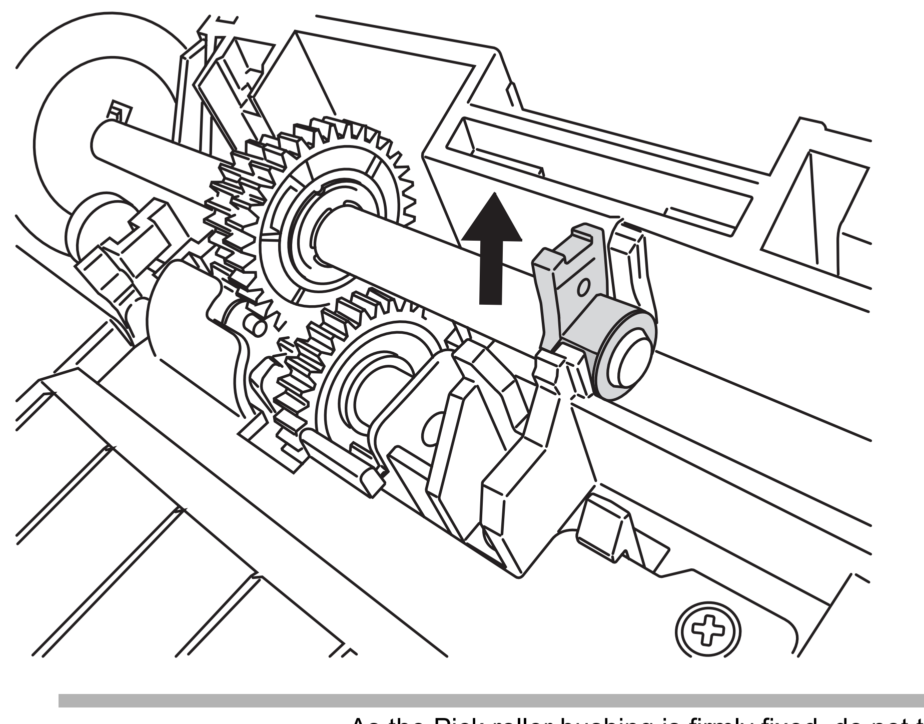
1) Pinch the knobs on the sheet guide and lift up the sheet guide to remove it.



2) Rotate the Pick roller bushing in the direction of the arrow.

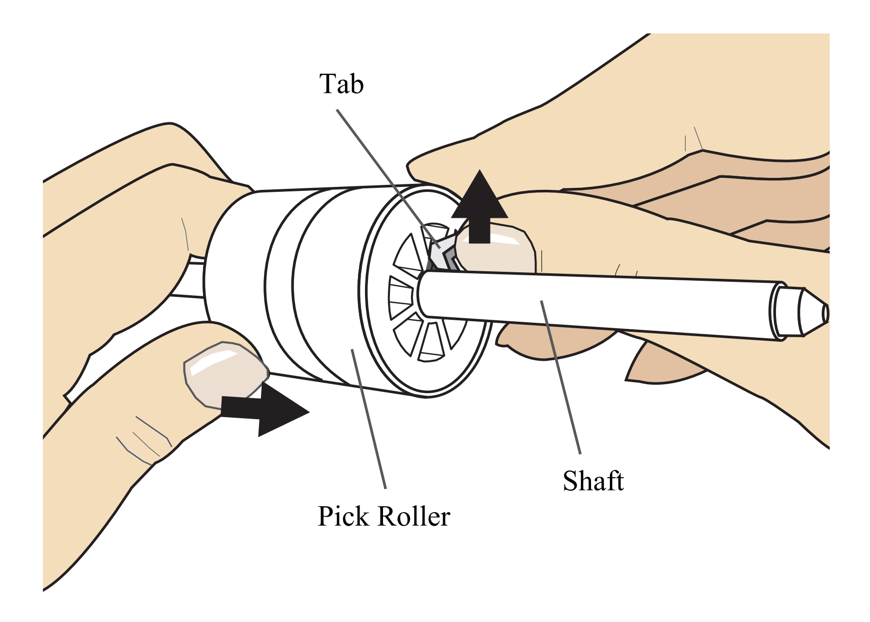


3) Remove the Pick roller shaft while lifting it up in the direction of the arrow.



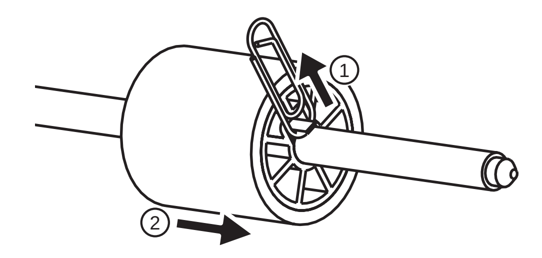
⚠ CAUTION	As the Pick roller bushing is firmly fixed, do not try to turn the roller bushing with your fingernails. Use a paper clip for turning the roller bushing if you cannot rotate it with your finger.

5. Remove the Pick roller from the shaft while lifting up the tab on the Pick roller.



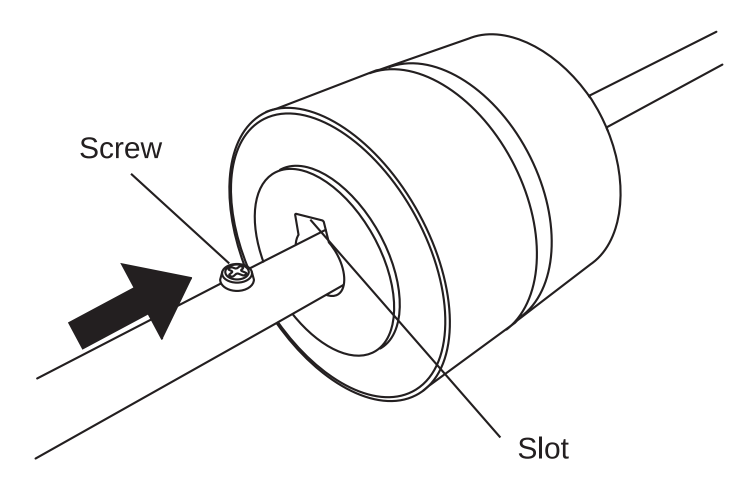


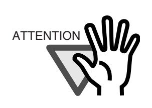
If you lift the pick roller tab with your fingernail, it may hurt your fingernail. Use a paper clip to lift the pick roller tab if you cannot do it with your finger.



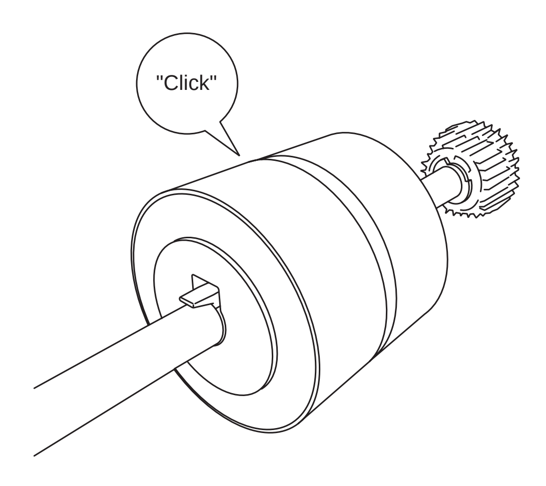
6. Attach new Pick roller.

Insert new Pick roller aligning the screw on the shaft with the slot in the Pick roller.





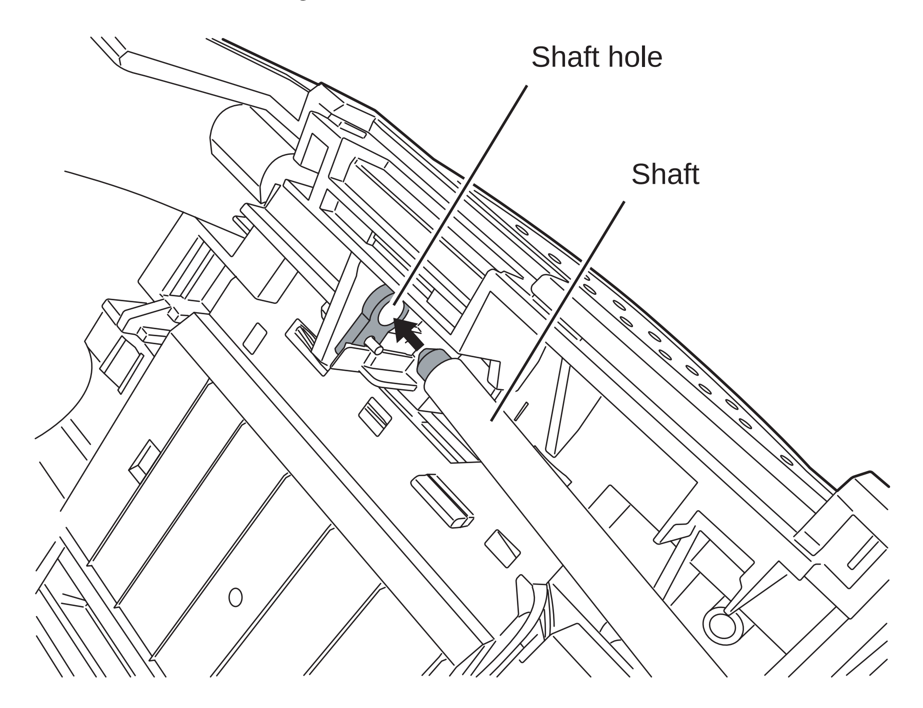
Make sure that the Pick roller is correctly attached. The incompletely-attached Pick roller might cause document jams or other feed errors. When attaching the Pick roller to the shaft, make sure that the roller's tab clicks in to place.



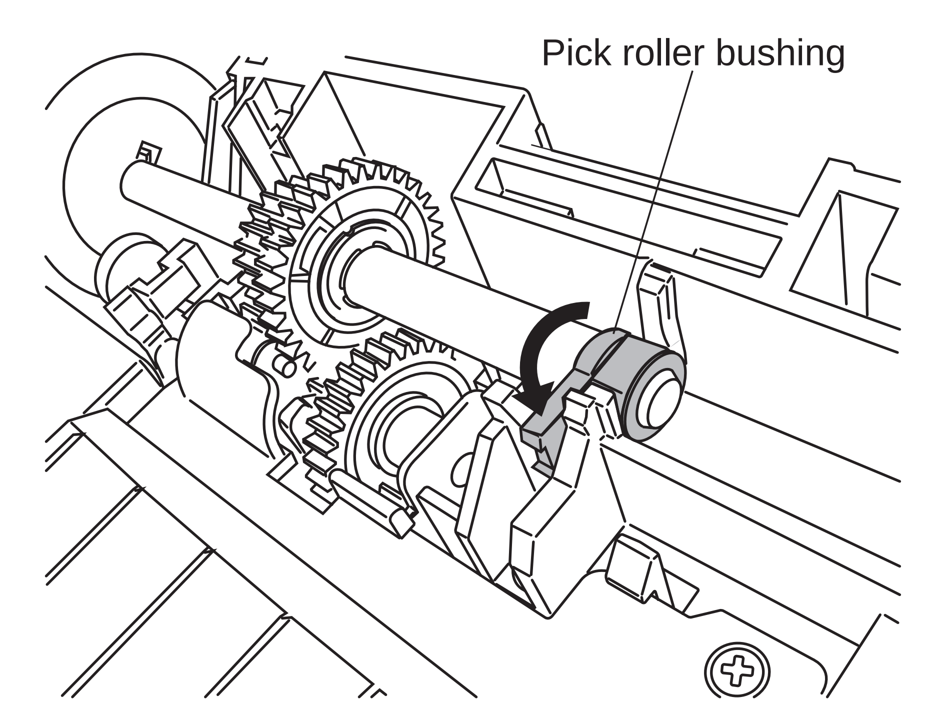
7. Attach the Pick roller shaft to the scanner.

Attatch the Pick roller shaft to the scanner in reverse order of removing.

1) Set the Pick roller inserting an end of shaft into the shaft hole.

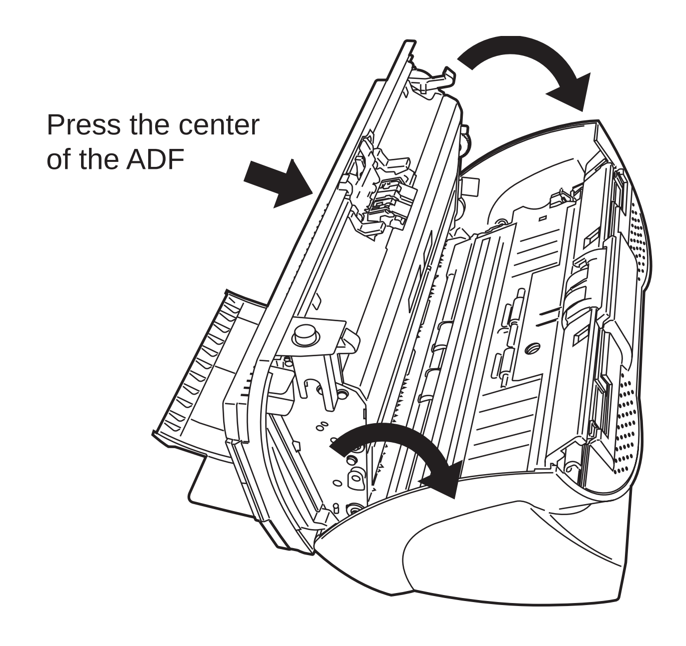


2) Turn the Pick roller bushing in the direction of the arrow.

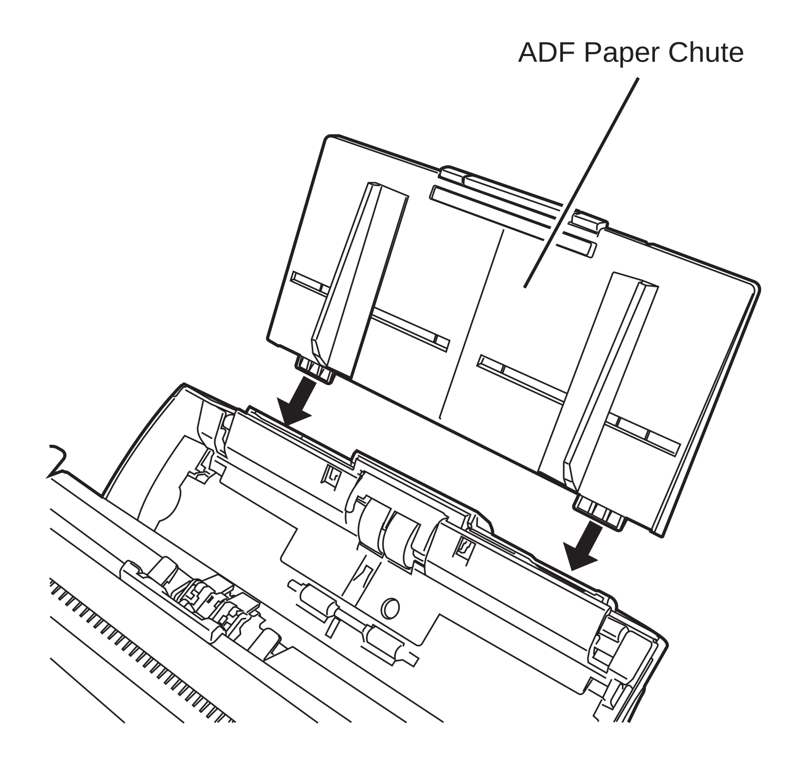


3) Attach the sheet guide.

8. Push in the center of the ADF to close it until the ADF button is locked.



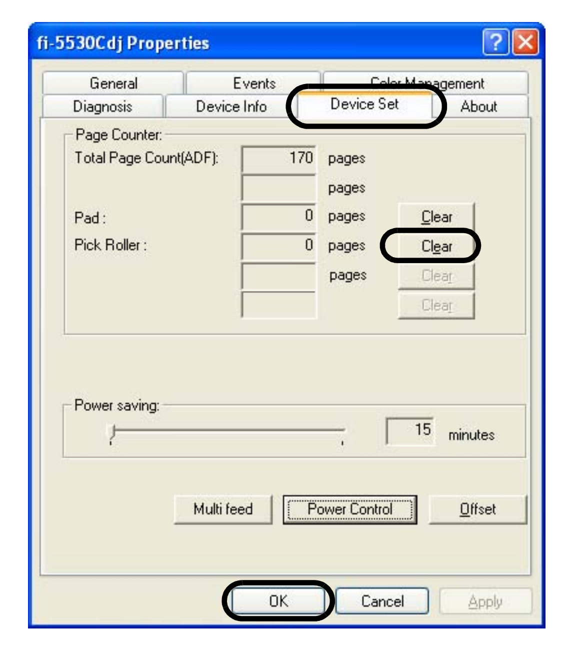
9. Attach the ADF paper chute to the scanner.



10. Reset the pick counter.

- For Windows 98 / Windows Me / Windows 2000 / Windows XP

1) When turning on the power, check that the scanner is connected to your PC.
2) Open the [Scanners and Cameras] from the control panel of your PC.
3) Open the [Properties] of [fi-5530Cdj] from the [Scanners and Cameras].
   ⇒ The [Properties of fi-5530Cdj] dialogbox is displayed.
4) Click the [Device Set] tab.
   ⇒ The following window appears.



5) After clicking the [Clear] button beside [Pick Roller] in "Page Counter", click the [OK] button.
   ⇒ The following window appears.

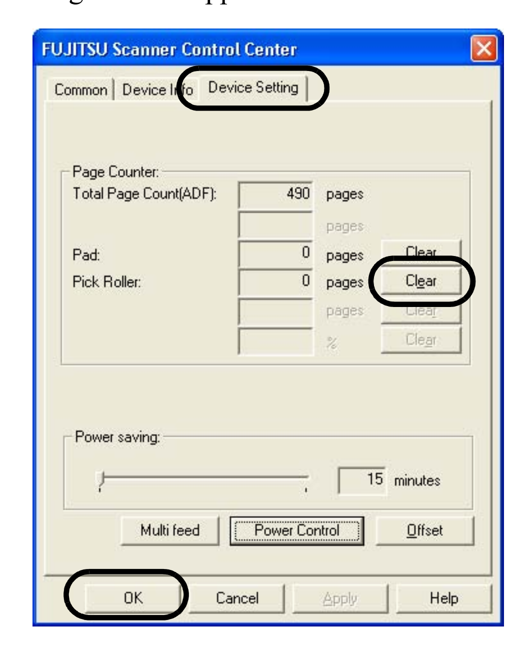


Click the [OK] button.
The Pick roller counter returns to "0".

- For Windows 95 / Windows NT 4.0

1) When turning on the power, check that the scanner is connected to your PC.
2) Right click the [FUJITSU Scanner Control Center] icon in the task tray, then select [Option]
3) Click the "Device Setting" tab.

⇒ The following window appears.



4) After clicking the [Clear] button besides "Pick Roller" in [Page Counter], click the [OK] button.

⇒ The following message is displayed.



Click the [OK] button.
The Pick roller counter returns to "0".

Chapter 5

TROUBLESHOOTING

This chapter describes how to remedy document jams, other troubles and items to check before contacting the agent where you bought the scanner.

5.1 Removing Jammed Documents

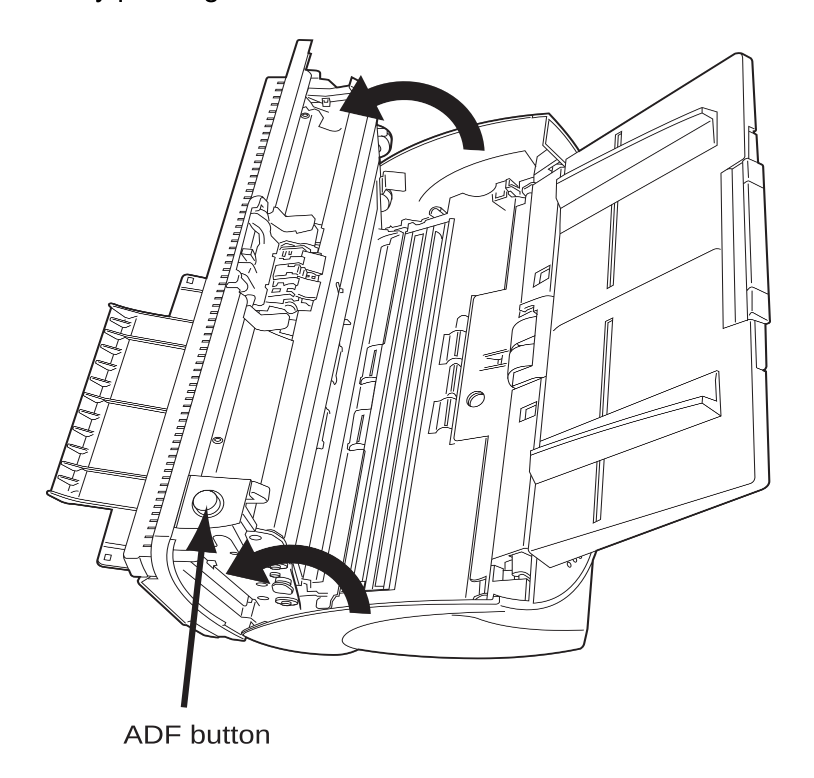
If a document jam occured, follow the procedure below to remove the jammed documents.



- Take care not to get injured when removing the jammed documents.
- Be careful not to get neckties, necklaces, etc. entangled in the scanner when removing the jammed documents.
- The surface of the glass may become hot during operation. Take care not to get burned.

1. Remove all documents from the ADF paper chute.

2. Open the ADF by pushing down the ADF button.



CAUTION

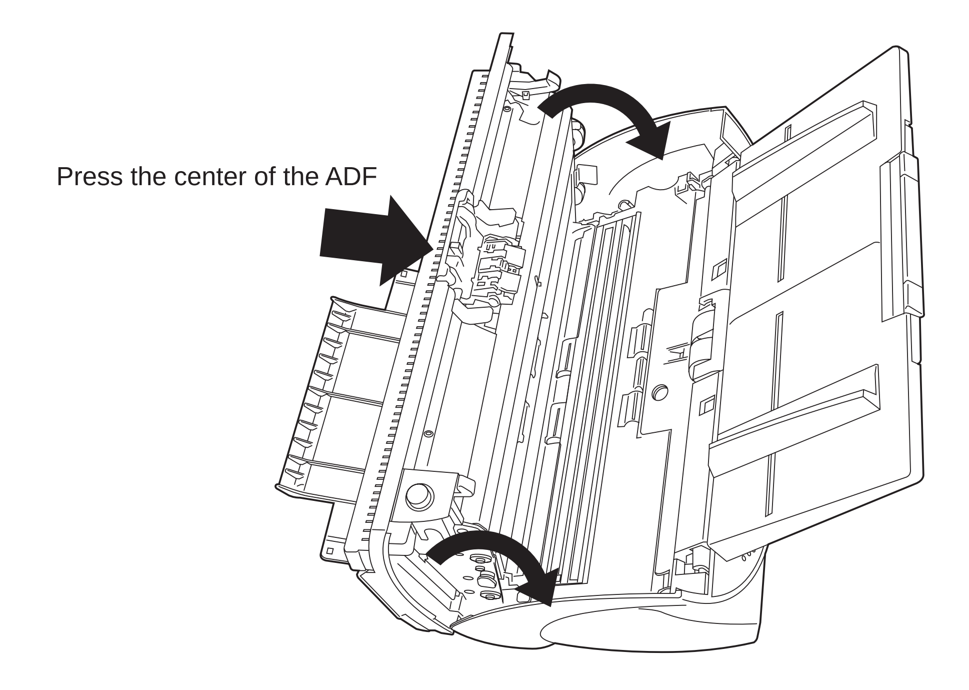
Be careful, the ADF cover may close and pinch your fingers.

3. Remove the jammed documents.



Staples, paper clips, etc. cause document jams. Be sure to fully check the document and feed path, and remove any small metal objects such as these.
Also, before you start scanning, be sure to remove any staples, clips, etc. from the document.

4. Push in the center of the ADF to close it untill the ADF button is locked.





- Make sure that the ADF is completely closed. When it is not completely closed, document jams or feeding errors may occur.
- When the scanning is completed at the pre-determined sheet or canceled, the documents might remain inside the ADF even though any error message is not displayed.
  Follow the procedure below to remove the documetns remaining in the ADF.
  1. Remove all documents from the ADF paper chute.
  2. Open the ADF by pushing down the ADF button.
  3. Remove the remaining documents.
  4. Push in the center of teh ADF to close it until the ADF button is locked.

5

TROUBLESHOOTING

5.2 Error Indications in the Function Number Display

When any error occurrs, the operator panel indicates "U" followed by a number alternately for temporary errors, or "E" followed by a number for device alarms (permanent error).
Temporary errors can be resolved by the operator, but the device alarm requires recovery works by support engineers.
When the Error Recovery Guide is installed on your PC and if any error or device alarm has occurred, this software displays information such as error names and error codes regarding the error/alarm. Take notes of the information and click [Details] on its window to learn detailed information for troubleshooting.

■ Temporary Errors:

A number appearing in alternation following the "U" refers to the following type of errors:

Indication	Meaning	Solution
U1	A paper feed error occurred.	Remove the jammed documents. (Refer to "5.1 Removing Jammed Documents" on page 80.) Confirm that the documents meet the paper conditions for scanning. (Refer to "6.2 Document Quality" on page 103.)
U2	A multi feed error occurred.	Press the [Send to] button on the Operator Panel. The papers that were multi fed will be ejected.
U6	The print cartridge is not set.	This is a temporary error related with the Imprinter option (sold separately). For details refer to 553PR Operator's Guide, chapter "5 Error Message".



The Error Recover Guide is stored in Setup CD-ROM. For installing the application software, refer to "2.3 Installing the Scanner Application" in fi-5530C Getting Started.

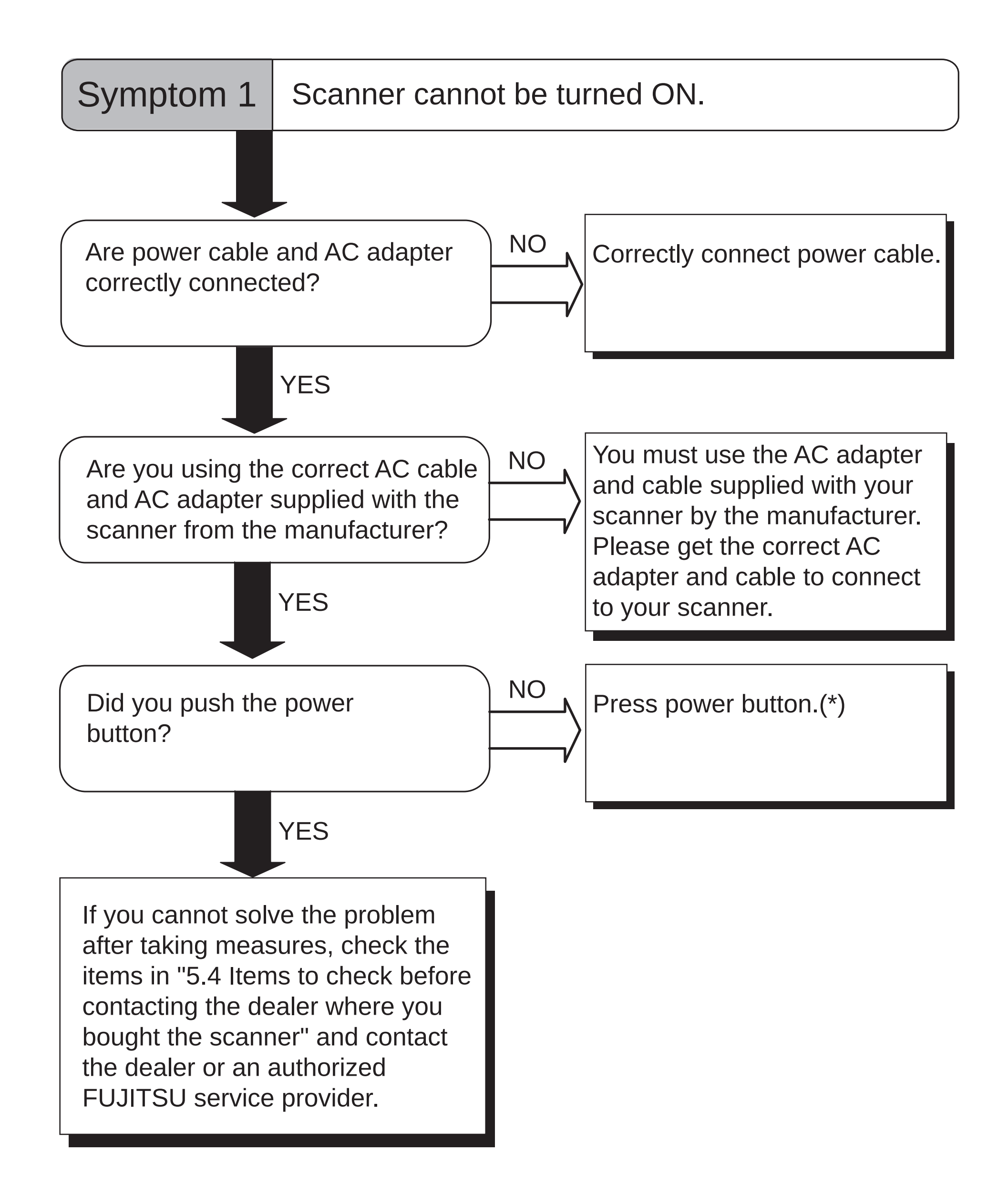
■ Device alarms:

A number appearing in alternation following the "E" refers to the following type of device alarms:

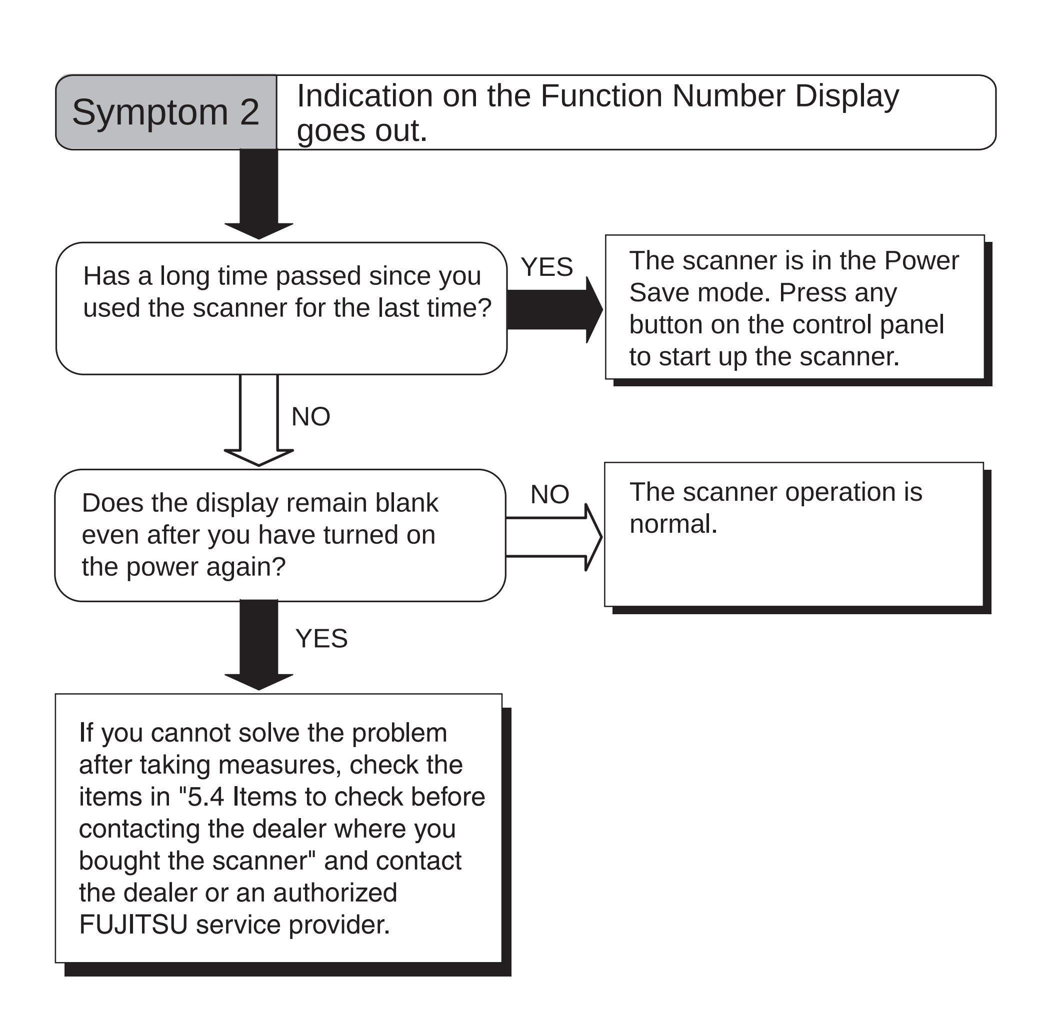
Indication	Meaning	Solution
E2	Trouble in the optical system (front).	When you encounter any alarm, turn off and on the scanner. If the alarm is still displayed on the Function Number Display, contact the dealer where you purchased the scanner or an authorized FUJITSU scanner service provider.
E3	Trouble in the optical system (back).	
E4	The motor fuse has blown out.	
E6	Trouble in the operator panel.	
E7	Trouble occurred in the internal memory (EEPROM).	
E8	The SCSI interface fuse has blown out.	
E9	An error in the image memory.	
Ec	An alarm in the memory.	
Ed	Trouble in the SCSI interface controller	
EF	Trouble in the Background switching mechanism	

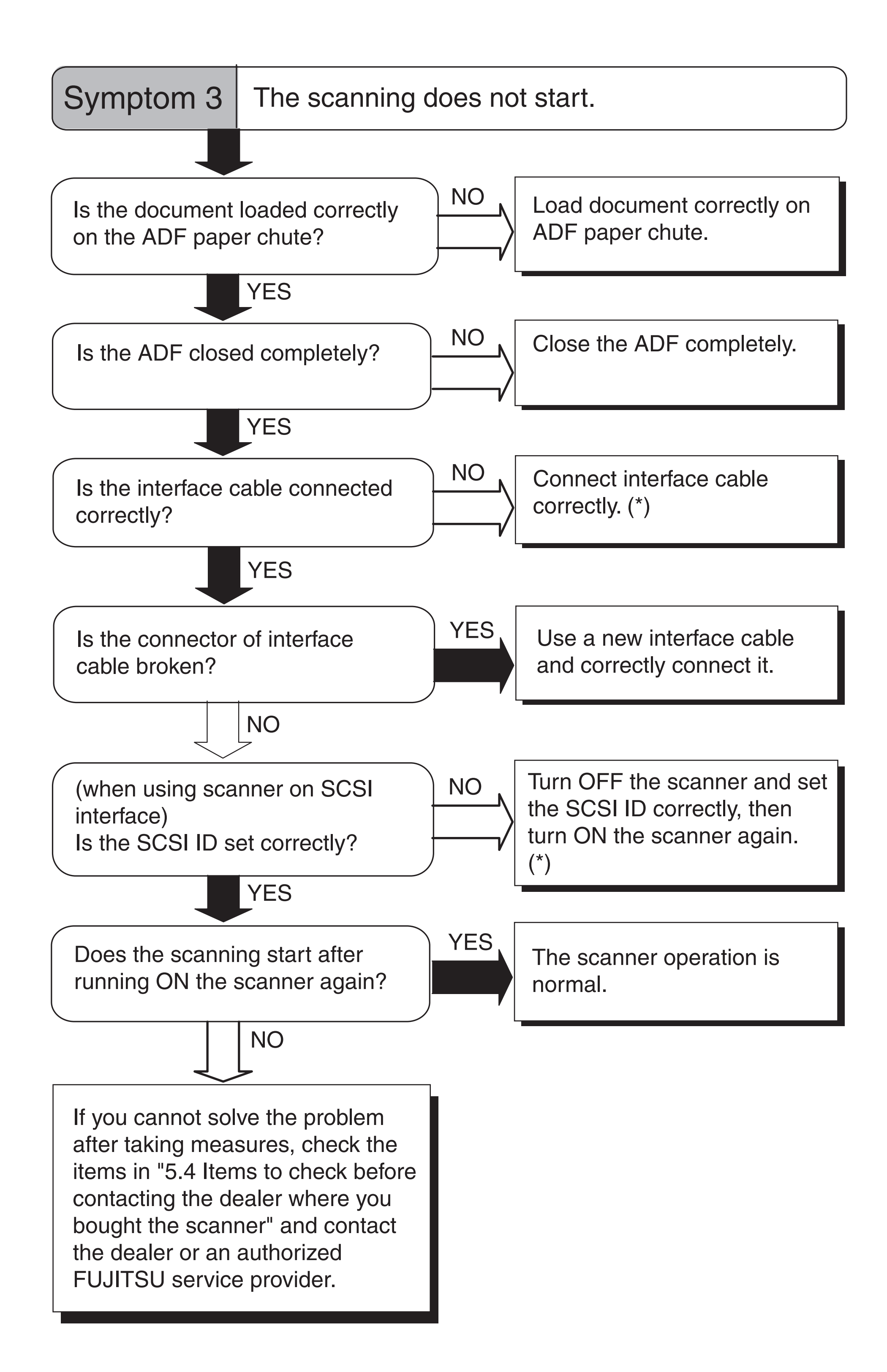
5.3 Remedying Common Troubles

This section describes troubles that may occur during scanning and how to remedy them.
Before you ask for repair service, check the following flowcharts.
If you cannot solve the problem after checking the remedies in the flowcharts, check the items in "5.4 Items to check before contacting the agent where you bought the scanner" (page 97) and then contact the agent where you bought the scanner.

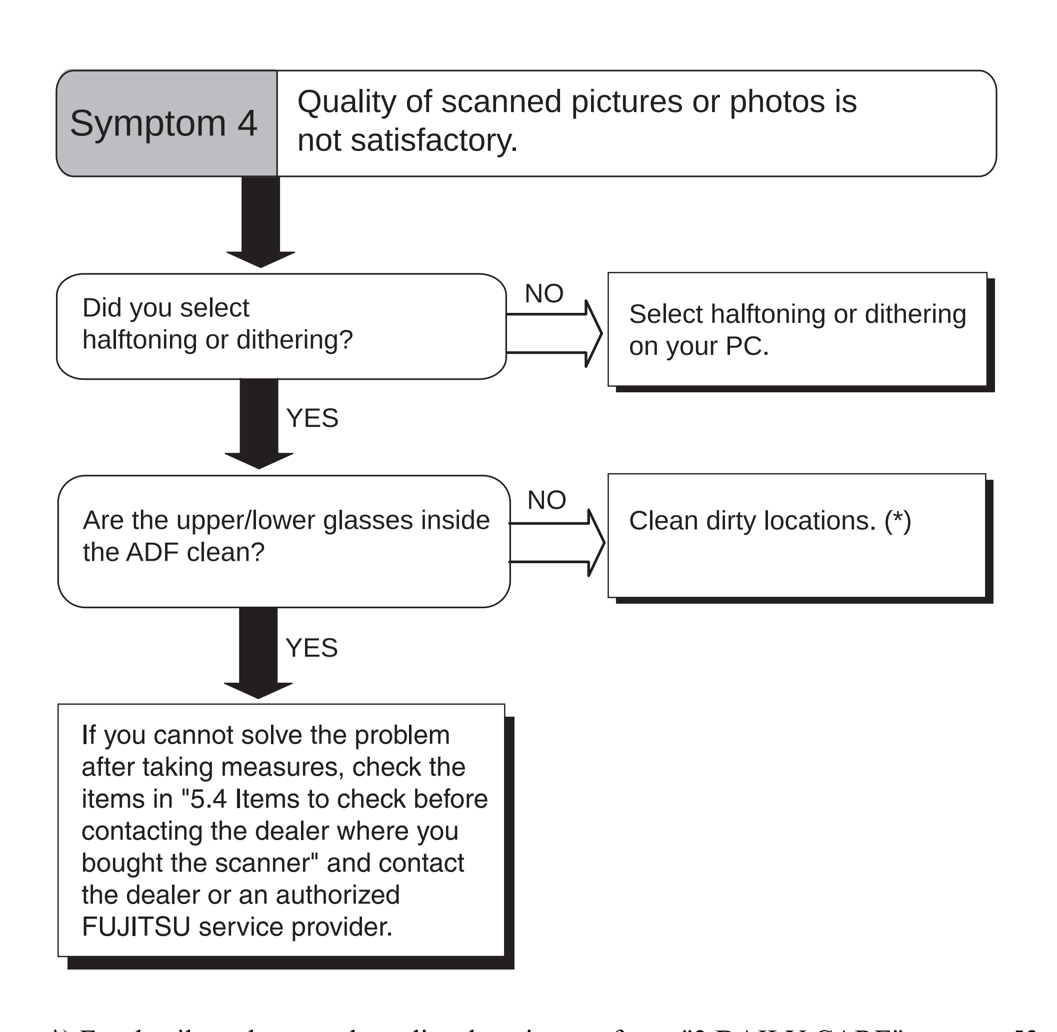


*) For details about how to turn the scanner on, refer to "1.1 Turning the Scanner ON" on page 2.

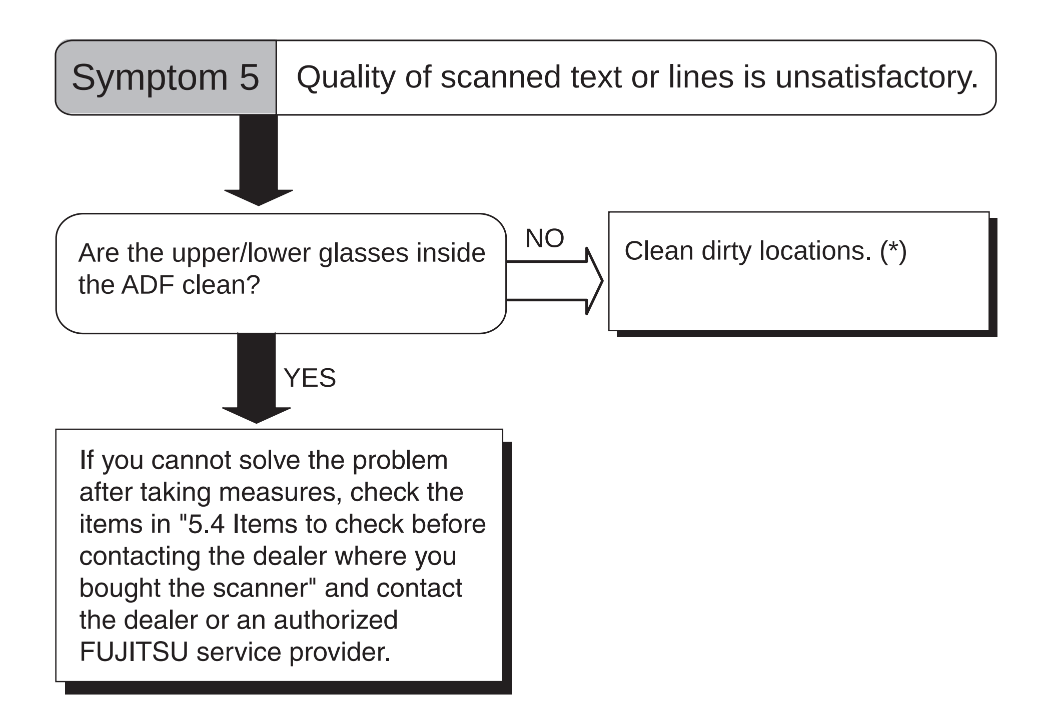

Symptom 2
Indication on the Function Number Display goes out.
Has a long time passed since you used the scanner for the last time?
YES
The scanner is in the Power Save mode. Press any button on the control panel to start up the scanner.
NO
Does the display remain blank even after you have turned on the power again?
NO
The scanner operation is normal.
YES
If you cannot solve the problem after taking measures, check the items in "5.4 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.



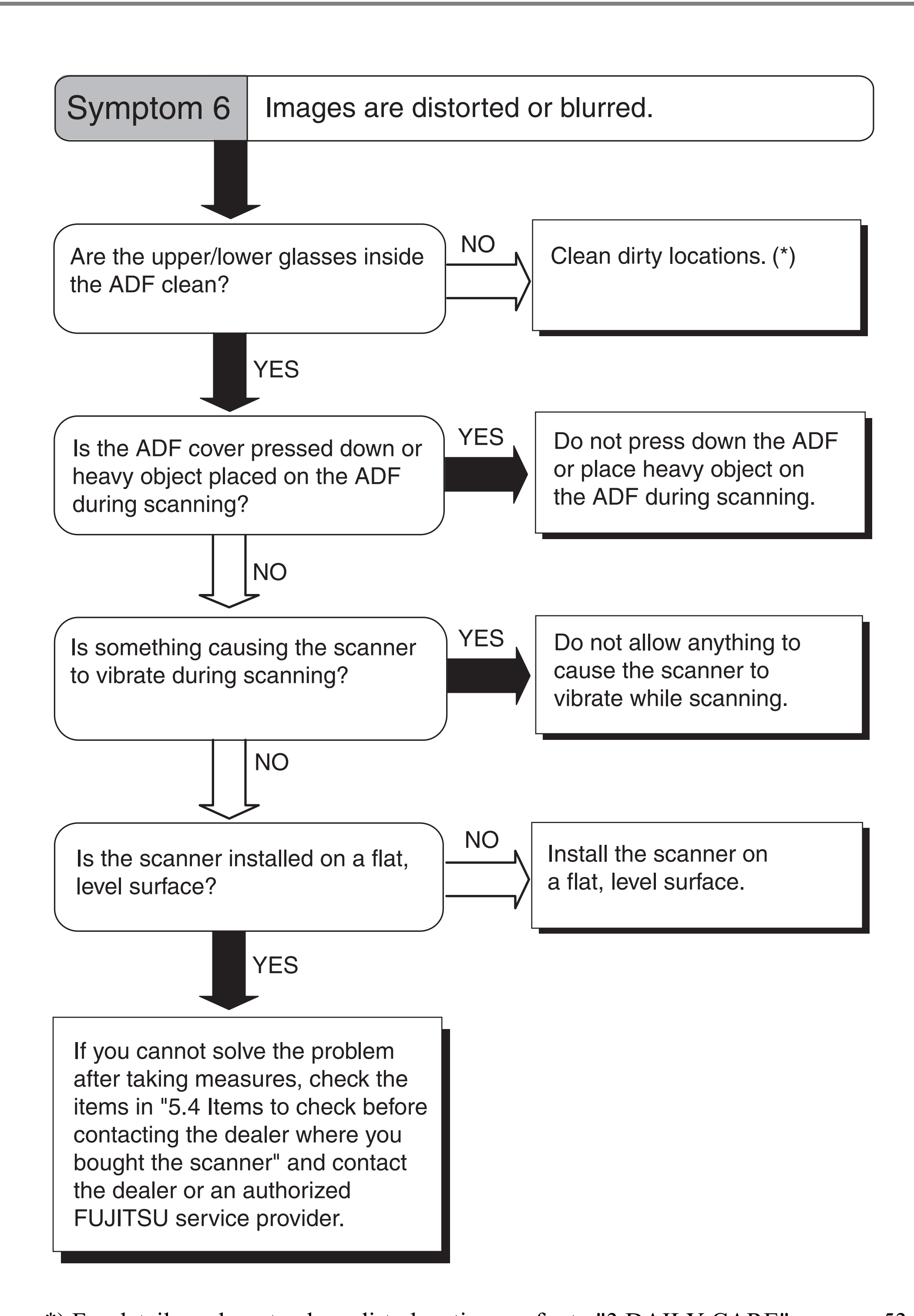
*) For details, refer to Getting Started "2.2 Connecting the scanner to your PC".



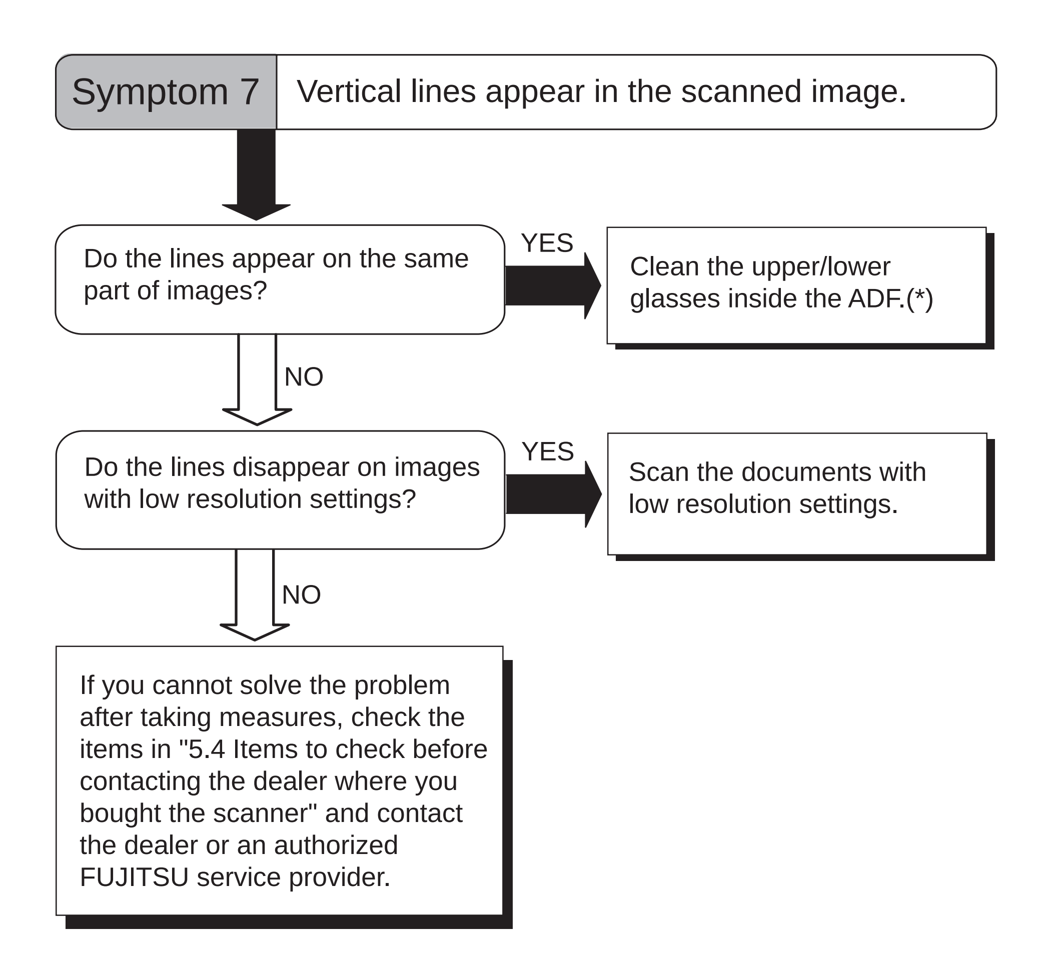
*) For details on how to clean dirty locations, refer to "3 DAILY CARE" on page 53.



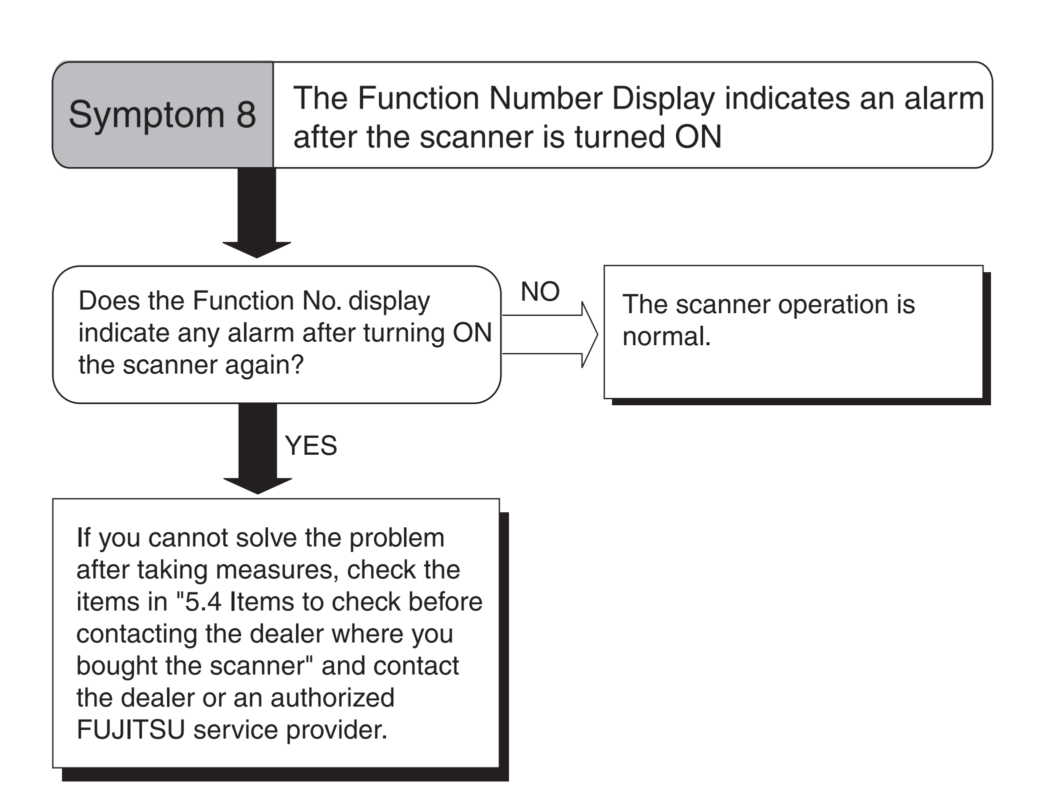
*) For details on how to clean dirty locations, refer to "3 DAILY CARE" on page 53.

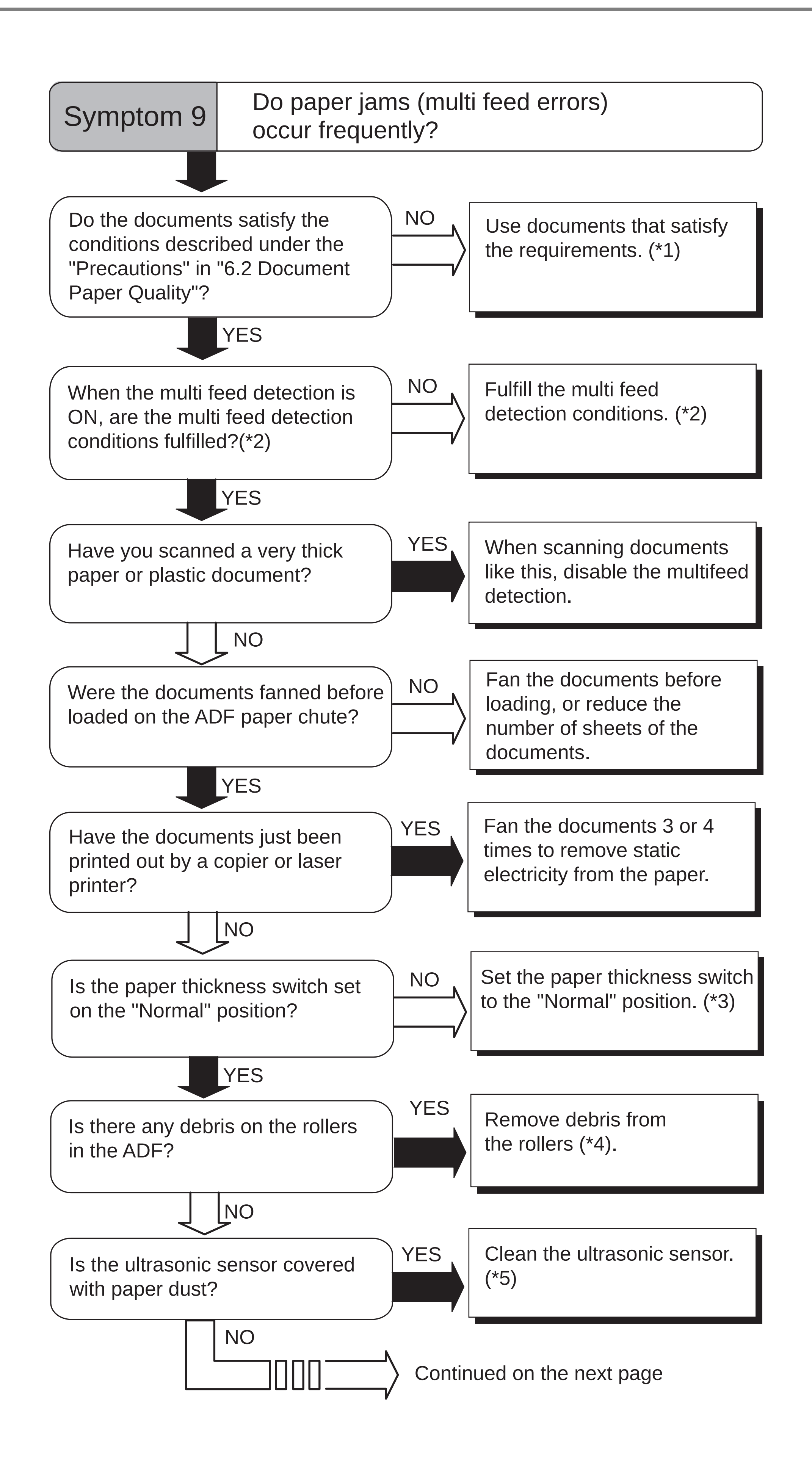


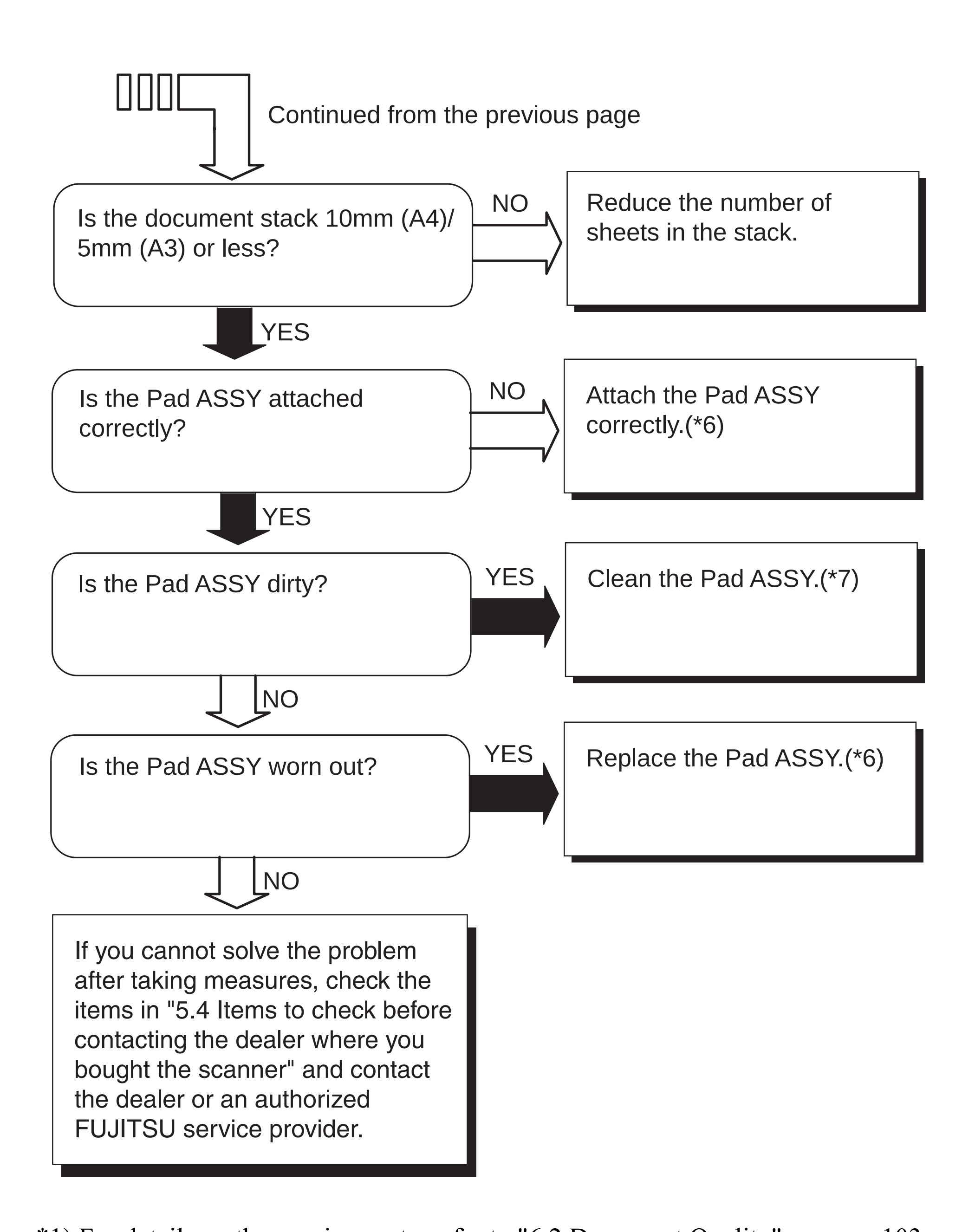
*) For details on how to clean dirty locations, refer to "3 DAILY CARE" on page 53.



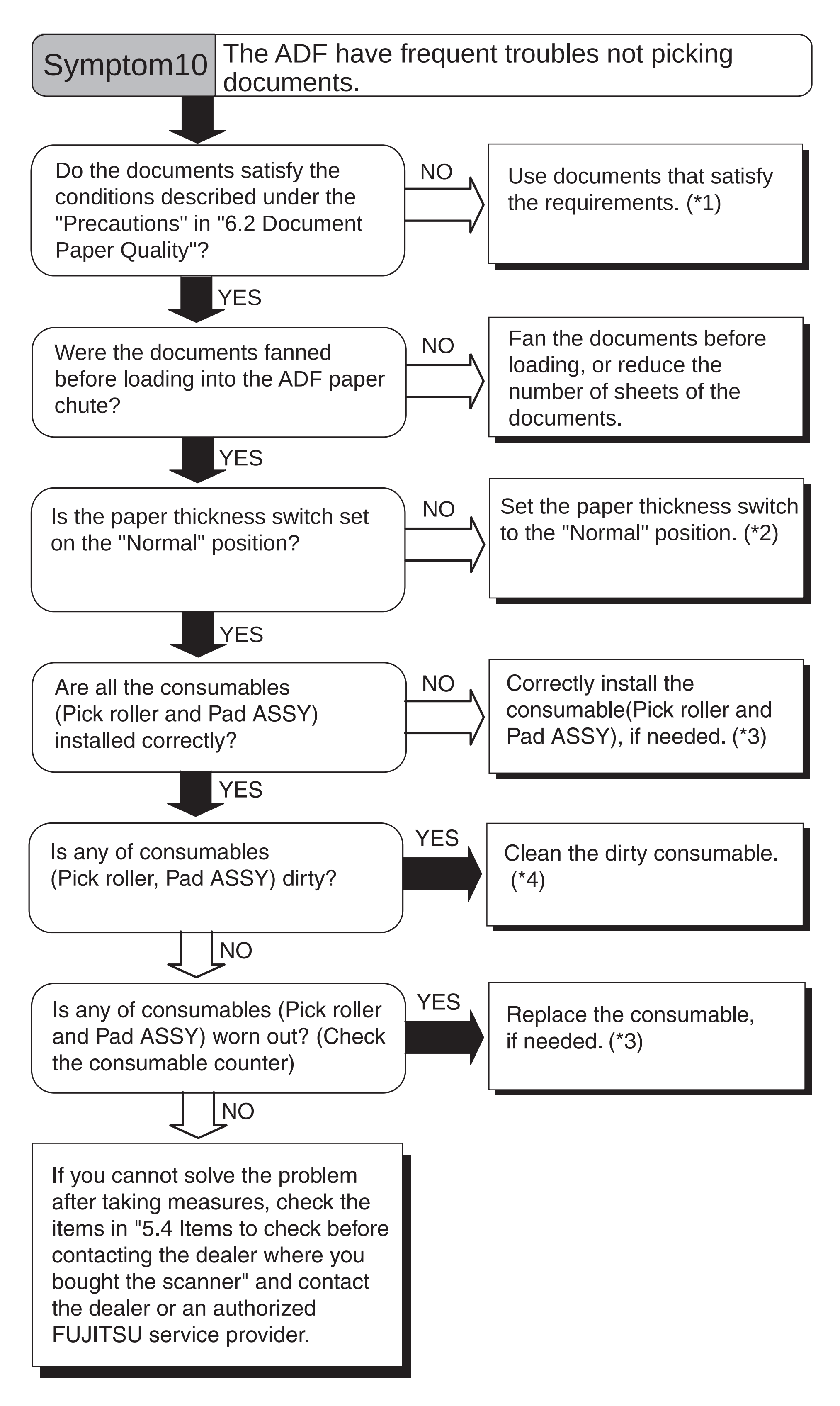
*) The ADF glass, refer to "3.2 Cleaning the ADF" on page 55.


Symptom 8
The Function Number Display indicates an alarm after the scanner is turned ON
Does the Function No. display indicate any alarm after turning ON the scanner again?
NO
The scanner operation is normal.
YES
If you cannot solve the problem after taking measures, check the items in "5.4 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.

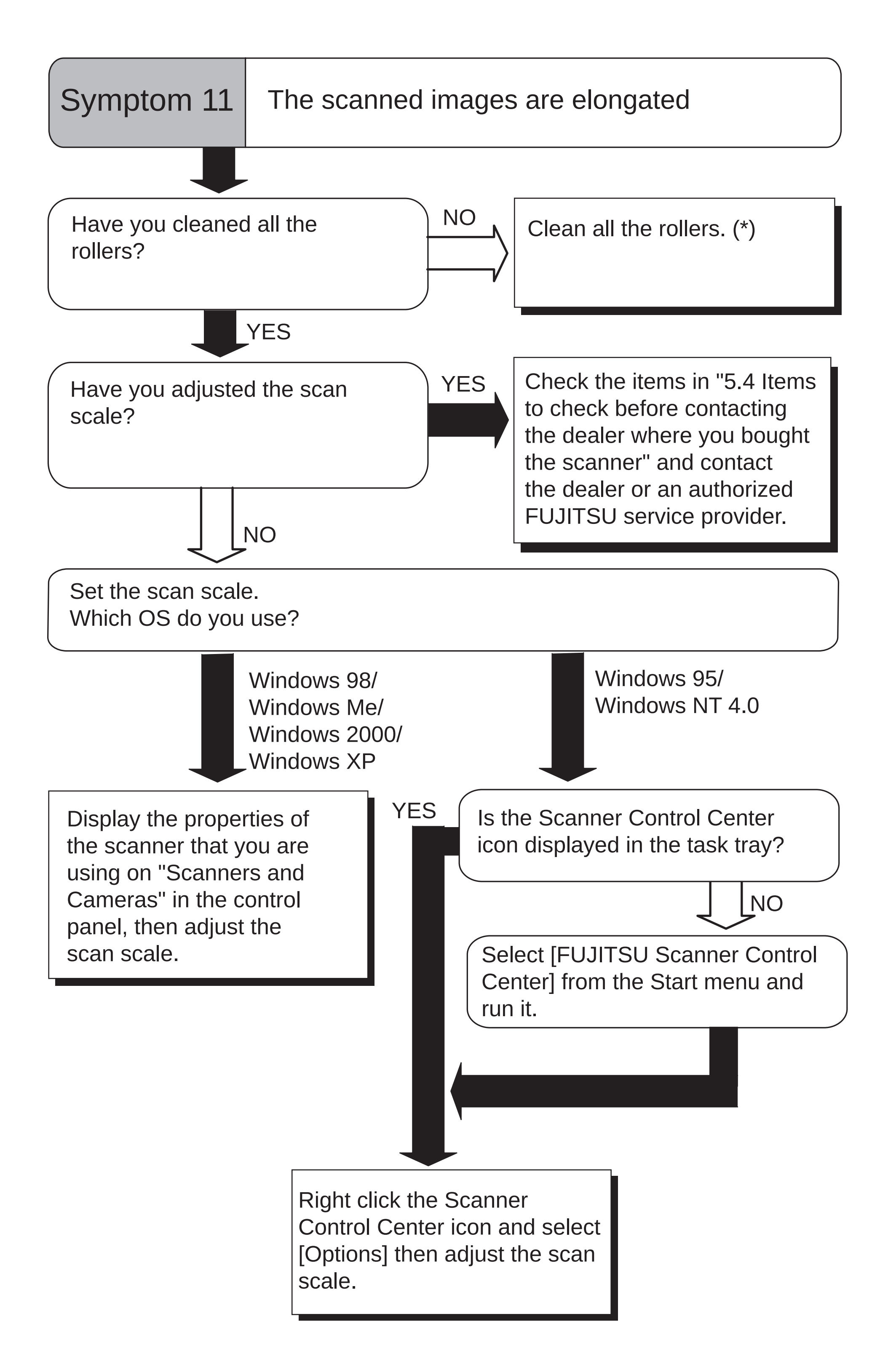

Symptom 9
Do paper jams (multi feed errors) occur frequently?
Do the documents satisfy the conditions described under the "Precautions" in "6.2 Document Paper Quality"?
NO
Use documents that satisfy the requirements. (*1)
YES
When the multi feed detection is ON, are the multi feed detection conditions fulfilled?(*2)
NO
Fulfill the multi feed detection conditions. (*2)
YES
Have you scanned a very thick paper or plastic document?
YES
When scanning documents like this, disable the multifeed detection.
NO
Were the documents fanned before loaded on the ADF paper chute?
NO
Fan the documents before loading, or reduce the number of sheets of the documents.
YES
Have the documents just been printed out by a copier or laser printer?
YES
Fan the documents 3 or 4 times to remove static electricity from the paper.
NO
Is the paper thickness switch set on the "Normal" position?
NO
Set the paper thickness switch to the "Normal" position. (*3)
YES
Is there any debris on the rollers in the ADF?
YES
Remove debris from the rollers (*4).
NO
Is the ultrasonic sensor covered with paper dust?
YES
Clean the ultrasonic sensor. (*5)
NO
Continued on the next page



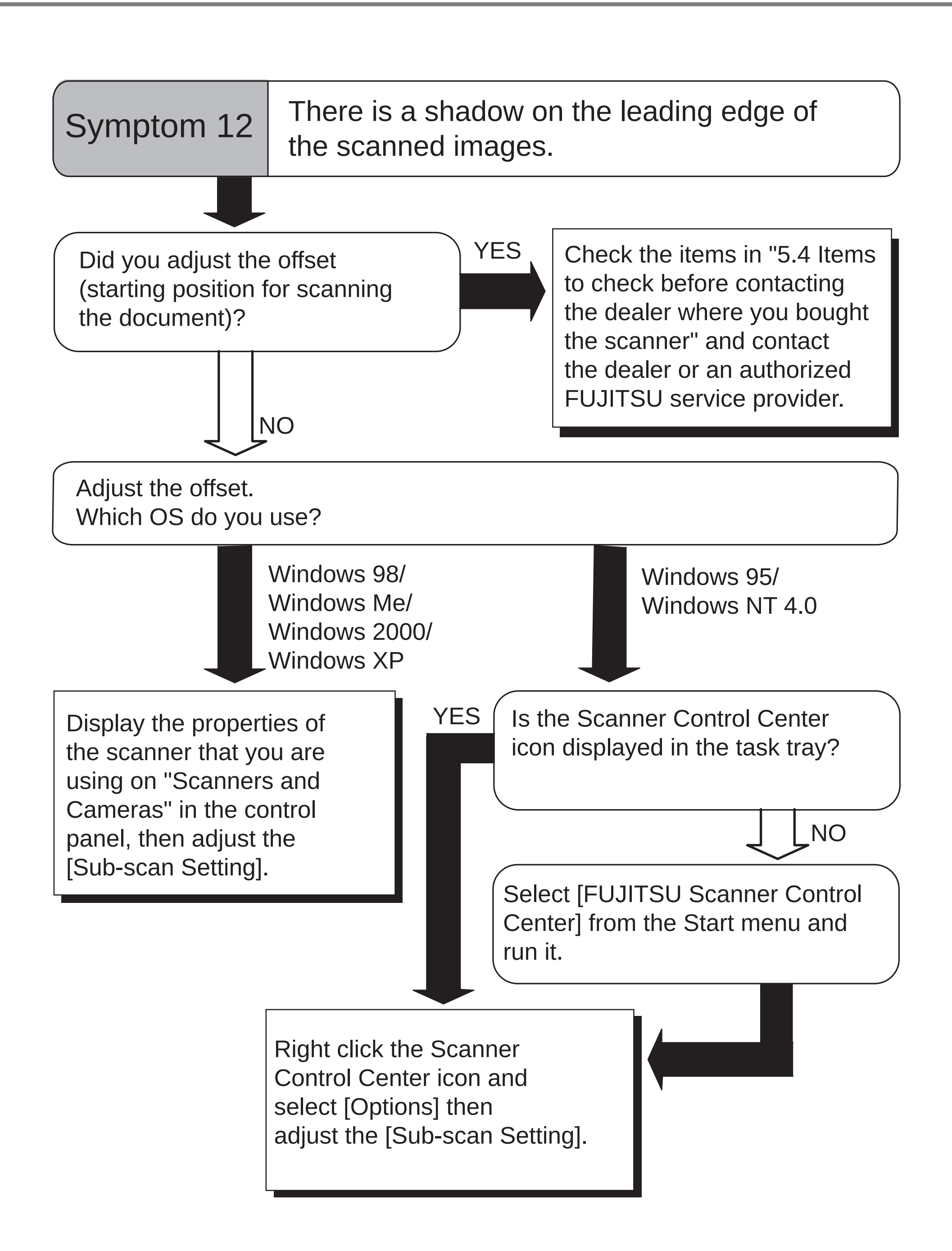
*1) For details on the requirements, refer to "6.2 Document Quality" on page 103.
*2) For details on multi feeds, refer to "6.5 Multi feed Detection Conditions" on page 108.
*3) For details on how to set paper thickness switch, refer to "2.3 Scanning thin Documents" on page 31.
*4) For details on how to clean the rollers, refer to "3.2 Cleaning the ADF" on page 53.
*5) For details on how to clean the Ultrasonic sensor, refer to the "3.2 Cleaning the ADF" on page 55.
*6) For details on how to replace (or attach) the Pad ASSY, refer to "4.2 Replacing the Pad ASSY" on page 66.
*7) For details on how to clean the Pad ASSY, refer to "3.2 Cleaning the ADF" on page 55.



*1) For details, refer to "6.2 Document Quality" on page 103.
*2) For details, refer to "2.3 Scanning thin Documents" on page 29.
*3) For details, refer to "4 REPLACING CONSUMABLES" on page 61.
*4) For details, refer to "3.2 Cleaning the ADF" on page 55.



*) For details on how to clean the rollers, refer to "3.2 Cleaning the ADF" on page 55.


Symptom 12
There is a shadow on the leading edge of the scanned images.
Did you adjust the offset (starting position for scanning the document)?
YES
Check the items in "5.4 Items to check before contacting the dealer where you bought the scanner" and contact the dealer or an authorized FUJITSU service provider.
NO
Adjust the offset.
Which OS do you use?
Windows 98/
Windows Me/
Windows 2000/
Windows XP
Windows 95/
Windows NT 4.0
Display the properties of the scanner that you are using on "Scanners and Cameras" in the control panel, then adjust the [Sub-scan Setting].
YES
Is the Scanner Control Center icon displayed in the task tray?
NO
Select [FUJITSU Scanner Control Center] from the Start menu and run it.
Right click the Scanner Control Center icon and select [Options] then adjust the [Sub-scan Setting].

5.4 Items to check before contacting the agent where you bought the scanner

Check the following items before you contact the agent where you bought the scanner.

■ General Details

Item	Findings
Model	fi-5530C
Serial Number	(Example) 000001 For details on the serial number, refer to "5.5 Checking Labels on the Scanner" on page 99.
Production date	(Example) 2005-07 (July, 2005) For details on the production date, refer to "5.5 Checking Labels on the Scanner" on page 99.
Date of purchase	
Symptom	
Frequency of trouble	

■ Installation or PC connection issues

- Trouble of connection to your PC

Item	Findings
OS	
Displayed error message	
Interface	(Example) SCSI interface
Interface controllers	(Example) made by Adaptec SCSI Card 2940AU

- Feed system trouble

Item	Findings
Document type	
Main purpose of use	
Last cleaning date	
Last consumables replacement date	
Operator panel status at trouble	

- Imaging system trouble

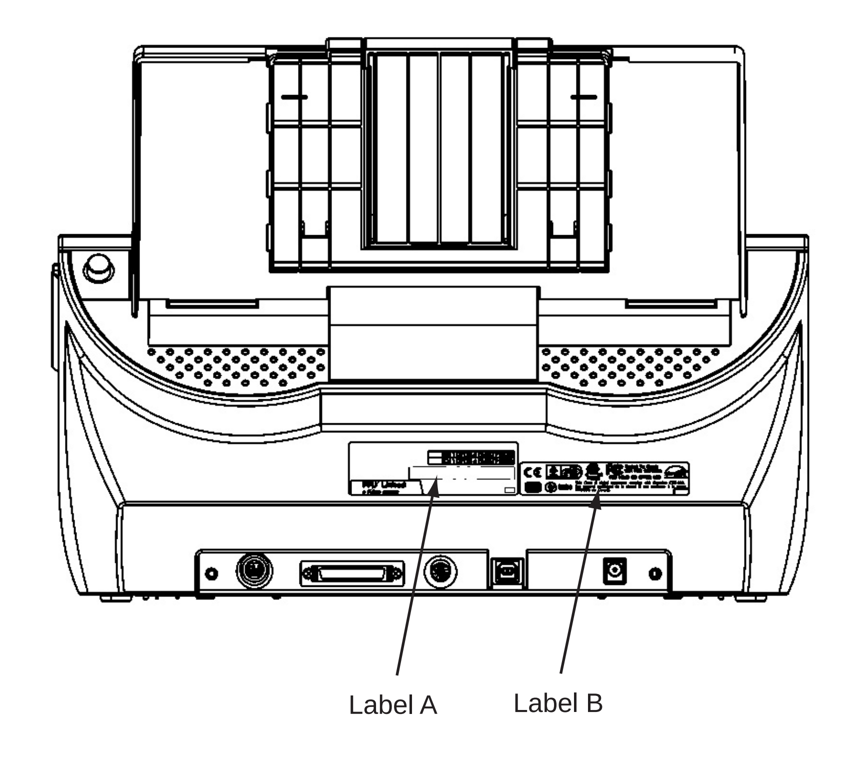
Item	Findings
Type and version of scanner driver	
Type of interface controller	(Example) made by Adaptec SCSI Card 2940AU
OS (Windows®)	
Application software	(Example) ScandAll 21, Acrobat

- Others

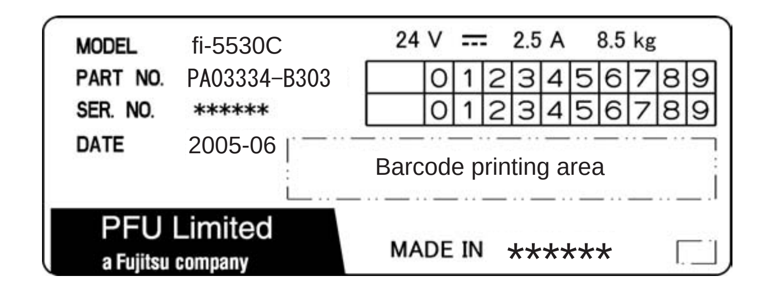
Item	Findings
Can both the original document and the scanned image be sent to us by e-mail or Fax?	

5.5 Checking Labels on the Scanner

■ Positions of Labels on the Scanner



Label A (example): Indicates scanner information.



Label B (example): Indicates various standards that the scanner conforms with.



5

TROUBLESHOOTING

Chapter 6

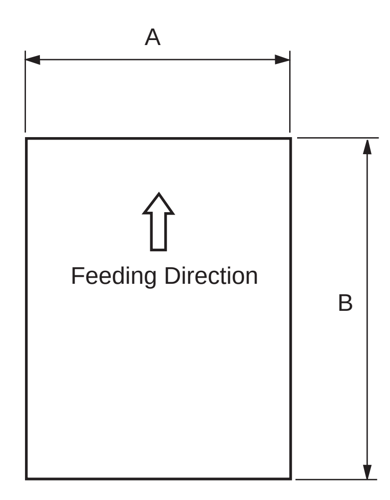
DOCUMENT SPECIFICATIONS FOR ADF

This chapter describes the required document sizes and paper quality for ensuring a correct operation when scanning documents on the ADF.

6

6.1 Document Size

The following shows the size of documents that can be scanned.



Maximum		Minimum	
A	B	A	B
297 (11.7 in)	863.6 (34 in)	53 (2.0 in)	74 (2.9 in)

(Unit : mm)

6.2 Document Quality

This section describes the types and thicknesses of documents that can be scanned stably, and precautions to follow.

■ Document Type

The recommended following paper types are:

- Woodfree paper
- Wood containing paper

When using documents of a paper type other than the above, perform a test-scanning with a few sheets of the same type before executing the actual task in order to check whether or not the documents can be scanned.

■ Document Thickness

Paper thickness is expressed by "paper weight." The following shows the paper weights that can be used on this scanner:

- 52 g/m^2 to 127 g/m^2 (13.9 lb to 34.0 lb)

Only a paper weight of 127 g/m^2 (34.0 lb) is allowed for A8-size documents.

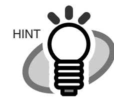
■ Precautions

The following documents may not be scanned successfully.

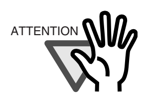
- Documents of non-uniform thickness (e.g. envelopes)
- Wrinkled or curled documents (Refer to HINT on page 105.)
- Folded or torn documents
- Tracing paper
- Coated paper
- Carbon paper
- Carbonless paper
- Photosensitive paper
- Perforated or punched documents
- Documents that are not square or rectangular
- Very thin documents

Do not use the following documents:

- Paper-clipped or stapled documents
- Documents on which the ink is still wet
- Documents smaller than A8 (Portrait) in size
- Documents wider than A3 or 11x 17 in size
- Documents other than paper such as fabric, metal foil, or transparencies



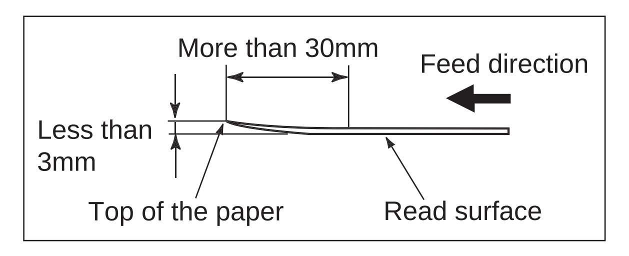
- When scanning semi-transparent documents, slide the [Brightness] bar to light to avoid bleed through.
- To prevent the rollers from becoming dirty, avoid scanning documents containing large areas written or filled in pencil. If scanning of such documents is inevitable, clean the rollers more frequently.

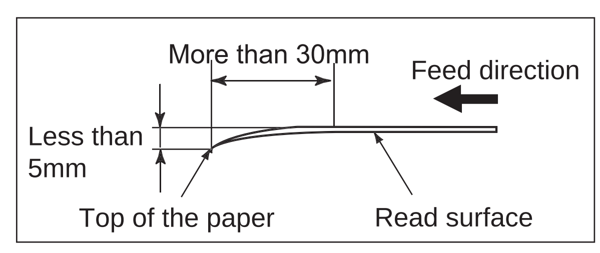


- Carbonless paper contains chemical substances that may harm the Pad ASSY or rollers (e.g. Pick roller) when documents are fed. Pay attention to the following:
  Cleaning: If document jams occur frequenlty, clean the Pad ASSY and the Pick roller. For details on cleaning the Pad ASSY and the Pick roller, refer to "3.2 Cleaning the ADF" on page 55.
  Replacing parts: The service life of the Pad ASSY and the Pick roller may be shortened compared to the case of scanning wood containing paper documents.
- When scanning wood containing paper, the life of the Pad ASSY and the Pick roller may be shortened compared to the case of scanning woodfree paper.



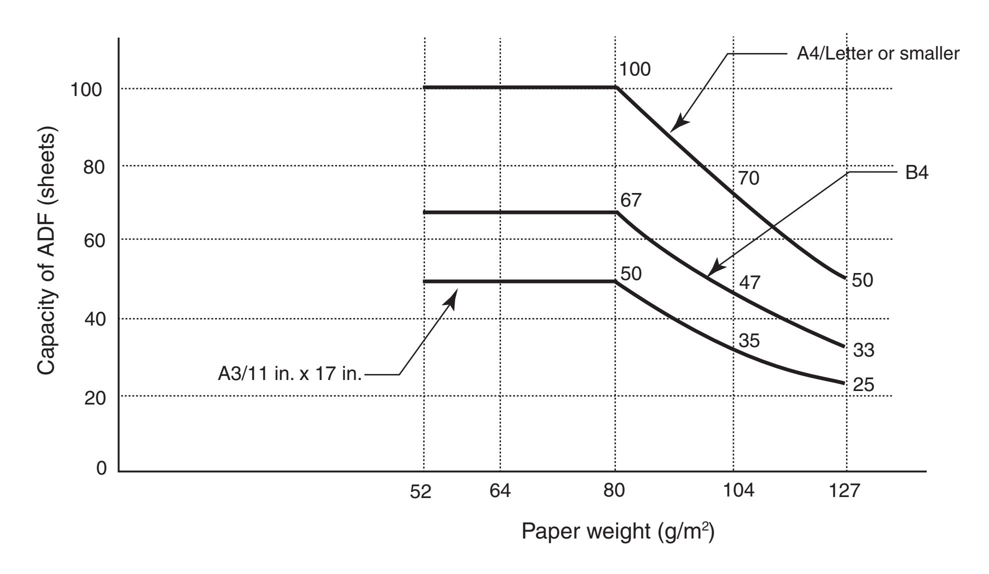
When using the ADF, the leading edge of all document sheets must be evenly aligned. Make sure that curling at the leading edge is within the following tolerances:





6.3 Maximum ADF Capacity

The maximum number of sheets that can be loaded on the ADF paper chute is determined by the size and weight of the documents. The following graph shows the maximum document loading capacity of ADF with respect to paper weight.

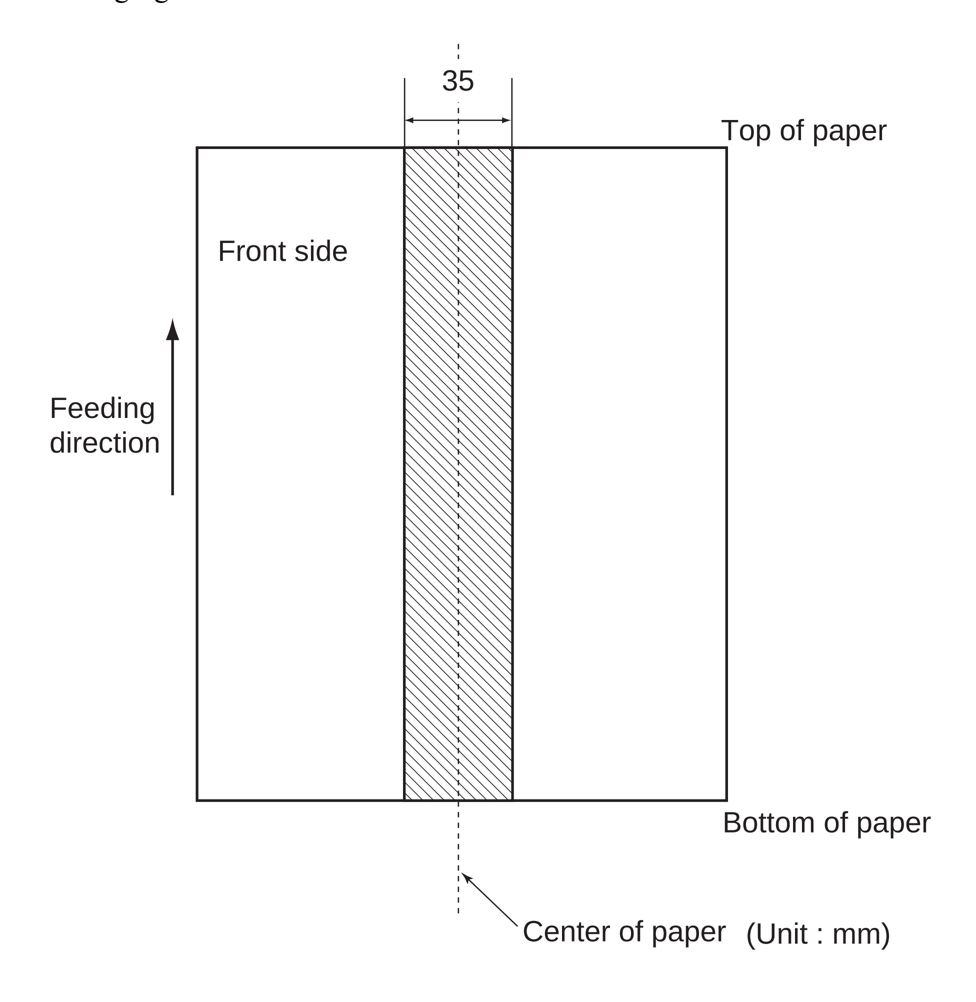


Paper weight conversion table

Unit	Conversion						
g/m^2	52	64	75	80	90	104	127
lb	13.9	17.0	20.0	21	24.0	27.9	34.0

6.4 Area not to be perforated

When using the ADF, document trouble might occur if there is any punched hole in the shaded area in the following figure.



6.5 Multi feed Detection Conditions

One of the following is selected to detect a multi feed:

- Check overlapping
- Check length
- Check overlapping and length

The following describes what condition is required for each selection:

■ Check overlapping

Paper weight	52 g/m^2 - 127 g/m^2 (13.9 lb to 34.0 lb)

Punched holes are not allowed within 35 mm (1.4 in) of the vertical centerline of the document.
Other paper shall not be glued within 35 mm (1.4 in) of the vertical centerline of the document.

■ Check length

Document length deviation	1 % or less

Punched holes are not allowed within 35 mm (1.4 in) of the vertical centerline of the document.

■ Check overlapping and length

Paper weight	52 g/m^2 - 127 g/m^2 (13.9 lb to 34.0 lb)
Document length deviation	1 % or less

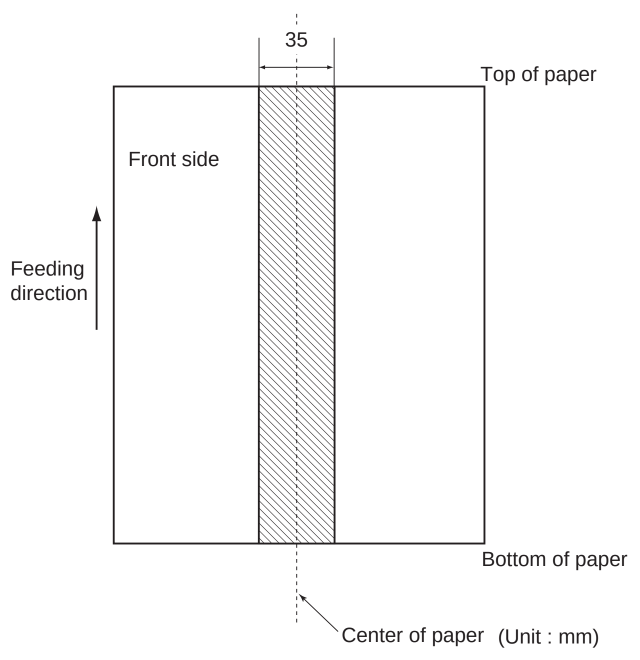
Punched holes are not allowed within 35 mm (1.4 in) of the vertical centerline of the document.
Other paper shall not be glued within 35 mm (1.4 in) of the vertical centerline of the document.



Multifeed detection by overlap will often mis-detect very thick paper or plastic document.
When scanning documents like this, please disable the multifeed detection.



- When the overlapping check is specified, the papers which contact closely each other, such as glued paper or electro-statically charged paper, can result in the miss-detection of multi feed.
- Normally multi feed detection will monitor the following area of the document.



Chapter 7

SCANNER SPECIFICATIONS

This chapter lists the scanner specifications.

7

7.1 Basic Specifications

No.	Item		Specification	
1	Scanner Type		ADF (Automatic Document Feeder)	-
2	Image sensor		CCD x 2	Front / Back
3	Light source		Incandescent cold cath-ode fluorescent lamp x 2	Front / Back
4	Scanning area	Minimum	A8 portrait	127 g/m^2 paper
		Maximum	A3 / 11 x 17 in	
5	Paper Weight		52 to 127 g/m^2 (13.9 to 34.0 lb)	(Note(*1))
6	Scanning Speed (A4 Portrait) (Note(*2))	Binary (monochrome)	Simplex: 35 sheets/min. Duplex: 70 sides/min.	200 dpi
		Color	Simplex: 45 sheets /min. Duplex: 90 sides/min.	150 dpi
7	Capacity of ADF (Note(*3))		100 sheets	A4, 80 g/m^2
			50 sheets	A3 80 g/m^2
8	Optical Resolution		600 dpi	-
9	Output resolution (Halftone)	Binary (monochrome)	50 - 600 dpi	Scalable in 1 dpi increments
		Glayscale		
		Color		
10	Grayscale level		8 bits per color	Internal 10 bits
11	Halftone Patterns		Dither / Error diffusion	-
12	Interface (Note(*4))		Ultra SCSI	Shield-type 50 pin (pin-type) halfpich
			USB 2.0 / USB 1.1 (Note(*5))	B Type
13	Other functions		JPEG compression	-
			Imprinter Port	-

No.	Item	Specification	
14	Options	Imaging Processing Software	(Note(*6))
		fi-553PR Imprinter	(Note(*7))

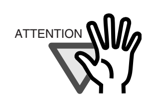
*1) For details, refer to "6 DOCUMENT SPECIFICATIONS FOR ADF" on page 101.
*2) The scanning speed is the maximum speed of the scanner hardware. Software processing time such as data transfer time is added to the actual scanning time.
*3) The maximum stacking capacity varies according to the document thickness. For details, refer to "6 DOCUMENT SPECIFICATIONS FOR ADF" on page 101.
*4) The Ultra SCSI and USB2.0/1.1 interfaces cannot be used at the same time.
*5) If you connect the scanner with USB 2.0, it its required that the USB port and the Hub are compliant with USB 2.0. The scanning speed may slow down when connecting with USB 1.1.
*6) “Image Processing Software Option” is an optional software for FUJITSU fi-series scanners to perform advanced binarization processing using the “FUJITSU TWAIN 32” scanner driver.
*7) By Using the Imprinter, a character string, such as the alphabet and numbers, can be printed in the scanned document. It helps you to organize your documents by printing a name, date, time or a serial number on the scanned document.

7.2 Installation Specifications

Item		Specification		
Dimensions (Without ADF paper chute and Stacker)		Depth	Width	Height
		225 mm (8.9 in)	399 mm (15.7 in)	193 mm (7.6 in)
Installation Space (D x W x H)		800 x 500 x 500 mm (31.5 x 19.7 x 19.7 in)		
Weight		8.5 kg (18.7 lb)		
Input power	Voltage	100 to 120 VAC ±10% 220 to 240 VAC ±10%		
	Phases	Single-phase		
	Frequency	50 / 60 ± 3Hz		
Power consumption		57 W or less		
Ambient condition	Device status	Operating	Not operating	
	Temperature	5 to 35 °C (41 to 95 °F)	-20 to 60 °C (-4 to 140 °F)	
	Humidity	20 to 80 %	8 to 95 %	
Heat capacity		49 kcal / H or less		
Shipping Weight		12 kg (33 lb)		

ATTENTION

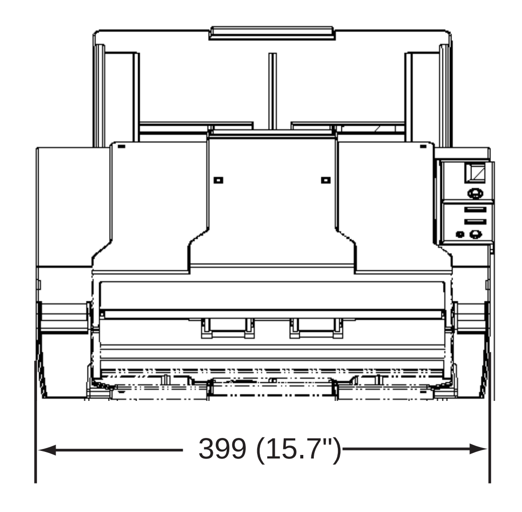
Installation Space is the reference value of an installation space required to read A3 documents.

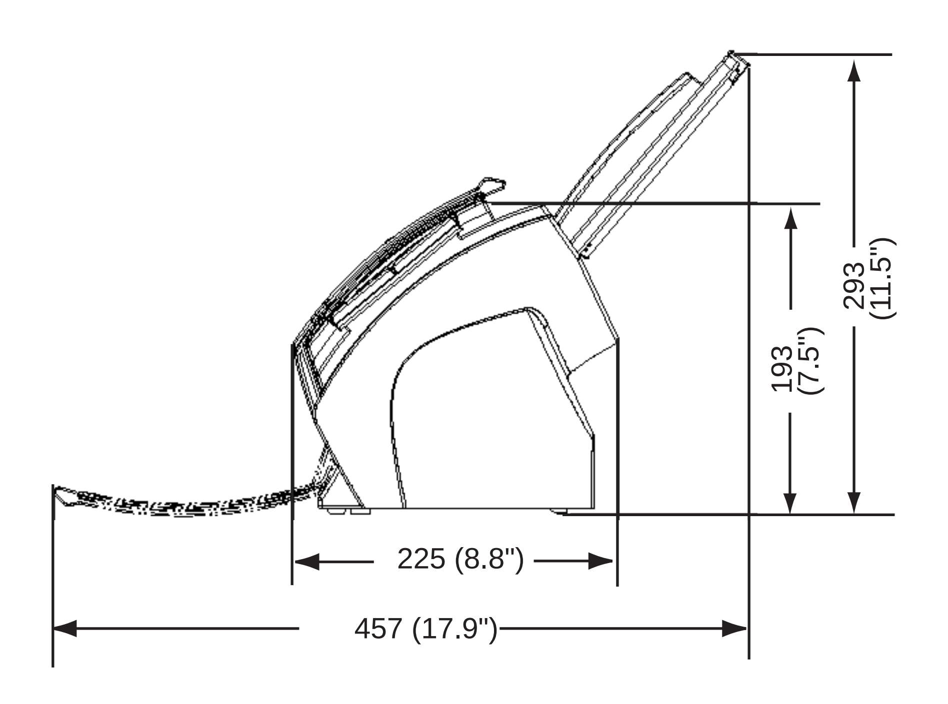


Refer to Chapter 4 "REPLACING CONSUMABLES" (page 61) for details on the scanned number of sheets for current consumable.

7.3 External Dimensions

The following shows the external dimensions of the fi-5530C.





(Unit : mm)

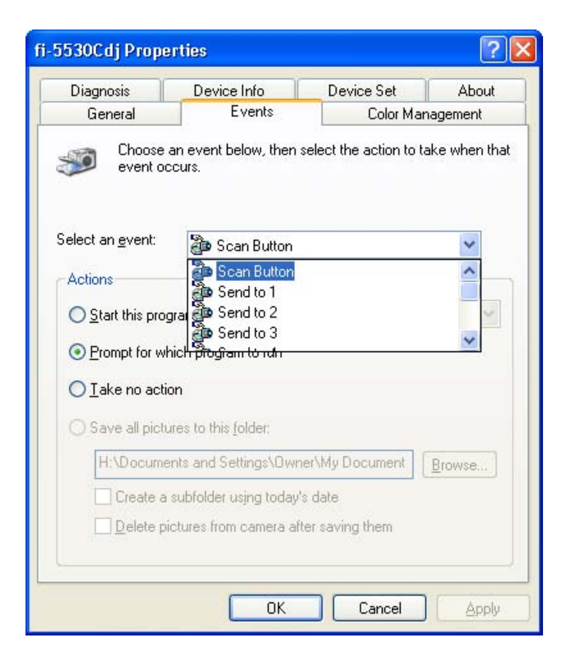
APPENDIX A

Using [Scan] or [Send to] button

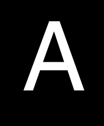
By setting the link of the application software to the [Scan] or [Send to] button, you can launch the linked application by simply pushing the button.

■ For Windows 98, Windows Me, Windows 2000, Windows XP

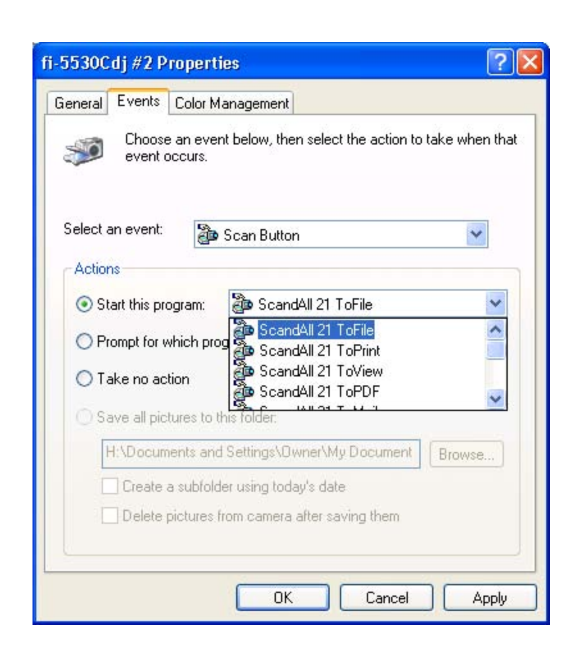
1. Select [Start]-[Control Panel].
2. Select [Scanners and Cameras]-[Properties].
3. Select the [Events] tab.
4. Select an Event. For the case of Windows XP, select an event for starting up any application from the [Select an event] menu.



The events available for this function are:
- Scan Button (When pushing the [Scan] button)
- Send to 1-9 (When pushing the [Send] to button)



5. Select the application with its process, excuted by the event. For the case of Windows XP, click [Start this program] under [Actions] and select the application and process from the menu.



6. Click the [OK] button.

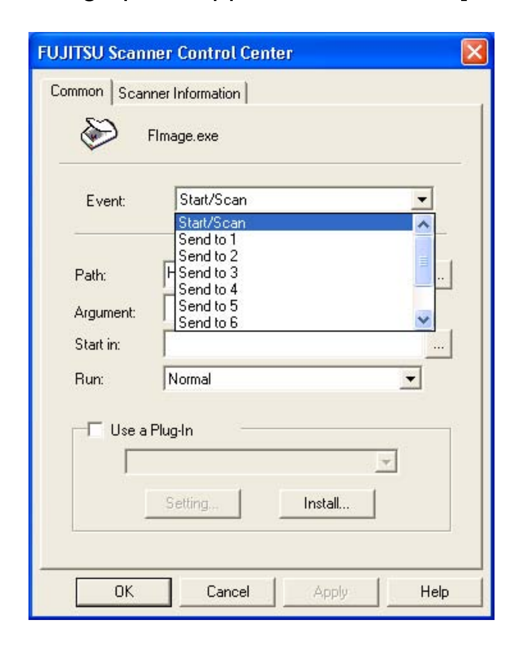


The window and operations may vary depending on your OS.

■ For Windows 95, WindowsNT 4.0

1. Right click the [FUJITSU Scanner Control Center] in the task tray and select [Option].

2. Select the event for starting up the application from the [Event] menu.



The events available for this function are:
- Start/Scan button (When pushing the [Scan] button)
- Send to 1-9 (When pushing the [Send] to button)

3. Click [...] button right to the entry field of [Path] to select the application software to activate.

4. Click [OK].

A

APPENDIX B

GLOSSARY OF TERMS

A4 size

A standard paper size. Paper size is 210 x 297 mm.

A5 size

A standard paper size. Paper size is 148 x 210 mm.

A6 size

A standard paper size. Paper size is 105 x 148 mm.

A7 size

A standard paper size. Paper size is 74 x 105 mm.

A8 size

A standard paper size. Paper size is 53 x 74 mm.

ADF (Automatic Document Feeder)

A unit that allows the user to scan a number of pages consecutively. Fed documents are transported from the ADF paper chute (or hopper) to the Stacker. Actual scanning operation is executed by the mechanism inside of this unit. Backside reading = Back-side scanning Refers to reading the backside of the document, specifically in Duplex reading mode.

Automatic separation

An image processing method in which the scanner automatically detects difference between text and photos, and chooses the threshold accordingly. This function allows the scanner to switch between line mode and half tone mode in one pass.

Automatic size/skew detection

A function that automatically detects the documents' page size and adjusts output data to the detected page size. Document skewing is automatically detected and corrected for the output image.

Brake roller

A roller that prevents two or more sheets of paper from being fed simultaneously into the ADF.

Brightness

Refers to the brightness of scanned images in this manual.

Canadian DOC Regualtions

"A standard issued by Industry Canada, a department of the Canadian government, which sets out the technical requirements relative to the radiated and conducted radio noise emissions from digital apparatus. "

CCD (Charged Coupling Device) Image Sensor

A semiconductor device inside the scanner that registers light reflected from the original image and converts it into a digitized (electronic) form. CCD technology is the basis of high-quality image acquisition in scanners, cameras, and other specialized devices.

Cleaning paper

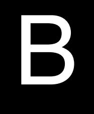
Sheets used with the F1 cleaner for cleaning the rollers (pick rollers, feed rollers, etc.) and complete document path in the scanner. Used in daily maintenance of the low volume production scanner to reduce paper transport problems. Note: these sheets are not meant to replace the more thorough periodic cleaning of the scanner.

Cleaning sheet

Adhesive sheets used for cleaning the rollers (pick rollers, feed rollers, etc.) and complete document path in the scanner. Used in daily maintenance of the high volume production level scanner to reduce paper transport problems. Note: these sheets are not meant to replace the more thorough periodic cleaning of the scanner.

Color balance

Balance of colors in images.



Default settings

Pre-set values for optional menus.

Density

In this manual, refers to a measurement of the depth of the display.

Dither

The process by which a group of dots is arranged to represent a shade of gray. The pre-determined dot pattern simulates shades of gray. This scanning process offers the advantage of reduce memory requirements compared to multilevel gray.

Document jam

A warning that appears when document is jammed in the transport unit, or transportation is Interupted because the paper is slipping.

dpi

Dots per inch. Number of dots lined along one inch A measurement of resolution normally used for scanners and printers. Higher dpi means better resolution.

Driver software

In this manual, driver software refers to software that allows the scanning application software to communicate with the scanner.

Dropout color

A color which is used in the document but does not appear in the read image.

Duplex reading mode

A mode for scanning both sides of the document in one pass.

Eject rollers

Rollers that transport documents from the ADF onto the Stacker.

Energy Star

ENERGY STAR is an international standard for energy-efficient electronic equipment. It was created by the US Environment Protection Agency (EPA) in 1992. The standard program has now been adopted by several countries around the world.

Equipment Error

An error that cannot be fixed by the operator. The operator should call the manufacturer for service.

Error diffusion

High-quality halftone (pseudo-grayscale) image production based on black-and-white pixel binarization. A pixel's optical density and that of adjacent pixels are summed, with black pixels relocated in their order of density as they relate to adjacent pixels. The purpose of this technique is to minimize the average error between read and printed densities. Density data for adjacent pixels is modified by diffusing errors on the objective pixel into several pixels, which are then binarized. This maintains high grayscale levels and resolution during reading, while suppressing more patterns by dotted halftone images such as newspaper photographs.

FCC

Acronym for "The Federal Communications Commission", an independent United States government agency which is in charge of regulating interstate and international communications via radio, television, wire, satellite and cable. The Part 15 of the FCC regulations mentioned in this manual is designed to prevent harmful interferences on radio communication of radio receivers and other devices which radiate radio frequency energy, and provides for the certification of radio receivers. It also provides the certification of low power transmitters and the operation of certificated transmitters without a license.

Feeds rollers

Rollers that feed documents through the ADF.

Filtering

A correction method that improves the read quality of handwritten documents. The read quality of images written in pencil or ball-pointed pen depends on the reflective light characteristics of the specific ink or lead used. Dropped pixels may produce outlines, gaps, or thin, barely connected lines due to uneven optical density. Filtering detects areas lighter than their surroundings and increases their density to improve image clarity. Flat bed An input device of the scanner, where documents are placed and scanned. Generally used for scanning pages out of a book, or paper that is out of the feeding specification of the ADF. Also used to scan a small volume of documents by manual operation.

Flatbed

An input device of the scanner, where documents are placed and scanned. Generally used for scanning pages out of a book, or paper that is out of the feeding specification of the ADF. Also used to scan a small volume of documents by manual operation.

Gamma

A unit of changes of images' brightness. It is expressed as a function of the electric input power to devices (scanner, display, etc.) and an image's brightness. If the gamma rate is larger than 1, the brightness of an image increases and vice versa. In order to adjust the brithtness of an image close to the orignal, generally the gamma value is set to 1.

Grayscale

A method for realizing the gradation from black to white on the scanned image. For example, when scanning monochrome documents, the computer recognizes the documents as sets of black and white dots. In the Gray scale method, each dot contains data regarding density of black. The original gradation of the documents is realized as the gradation of the density data.

Halftone processing

Any method used to reproduce a photograph which includes a shade as an image composed of dots, namely, a binary image. Dithering and error diffusion processing are examples of halftone processing.

Image emphasis

Density is decreased for lighter but not completely white areas adjacent to black areas. Weakening this emphasis eliminates spot noise or produces softened images.

Image processing

An image is scanned with specified parameters.

Interface

The connection that allows communication from the computer to the scanner.

Inversion (Reverse-image reading)

In reverse-image reading, data is changed from black to white and vice versa.

IPC preset mode

While reading binary images, it is necessary to set the scanner according to the quality of the sheet to be read. In this mode, these settings can be performed in advance by corresponding each setting to a pattern number.

ISIS (Image Scanner Interface Specification)

A standard of API (Application Program Interface) or protocol for imaging devices (scanners, digital cameras, etc.) developed by Pixel Translations, a division of Captiva Software. In order to use imaging devices designed on the ISIS standard, it is necessary to install the driver software of the same standard.

Jaggy images

Images that have sharp projections or irregular shape on their edges.

Job separation sheet

A sheet inserted between documents in a batch for separating different jobs.

Landscape

A document is transported and read with the Short side parallel to the moving direction.

Landscape orientation

A document is transported and scanned with the long side vertical to the moving direction.

Letter size

A standard paper size used in the U.S.A. and other countries. Paper size is 8-1/2 x 11 inches.

Linedrawing mode

Selecting linedrawing mode makes threshold and contrast settings effective but prevents brightness from being set. The specified threshold value determines whether black or white pixels are scanned. Line drawing mode is therefore appropriate for scanning text and line art images.

Multi Feed detection

A scanner function which detects accidental feeding of multiple sheets into the ADF. This can be set as both enabled/disabled.

Mirror image

The read image is symmetrically flipped to produce a mirror image of the original detected in the main scanning direction.

Moire Patterns

Recurrent patterns on scanned images caused by incorrect settings of angles.

Noise removal

Isolated noise from an image appearing as black spots in white areas and voids in black areas is removed to improve image quality.
Removes particles from the document image. Common particles include toner and fax particles. Noise reduction works via an algorithm that removes pixels up to 5 x 5 dots appart. A dot is 1/400 inch. A particle can be distinguished from a character as it is not connected to another dot within 5 pixels.

OCR (optical character recognition)

Devices or technologies for identifying characters on documents and converting them into text data that can be manipulated. The documents are checked by light and the differences of light reflection are recognized as character shapes.

Operator panel

A panel consists of indicators and buttons. The operator panel is used to control scanner operations such as, selecting features, and changing settings.

Optical sensor

A type of sensor for detecting Multi Feeding by light transmission. It also detects multi feeding by recognizing differences in length of documents.

Outline extraction

The boundary between black and white areas is traced and the outline extracted for closed areas.

Pad ASSY (Pad Assembly)

This part is used to separate a sheet of paper from a batch before feeding documents into the ADF. This assembly is made out of rubber.

Photograph mode (White level follower OFF)

Selecting photograph mode makes brightness and contrast settings effective but prevents the threshold from being set. With photograph mode, the darkness of image corresponds to the black-pixel density, making it suitable in scanning images such as photographs having gradations.

Pick roller

Roller(s) that picks the page from the batch of paper in the paper chute and feed it into the ADF.

Pick start time

The period from the manual insertion of the document until picking starts after the document passes the hopper empty sensor.

Pixel (Picture Element)

The tiny dots that make up a scanned image.

Portrait

Orientation of documents or images. Documents/images are set or displayed vertically.

Portrait orientation

A document is transported and read with the long side parallel to the moving direction.

Resolution

The measure of the details or grain of images displayed on a computer screen. As a metric of the resolution, dpi is customarily used.

SCSI (Small Computer System Interface)

An abbreviation for "Small Computer System Interface". SCSI is a standard for interfaces, used to connect devices such as hard disks, scanners, etc. Up to seven devices can be connected through this interface (daisy chain). The data transfer rates are different between "Fast SCSI" (Max. 10MB/sec.) and "Wide SCSI" (Max. 20MB/sec.).

SCSI-ID

Used to specify a particular SCSI device when the initiator selects a target or the target reconnects to the initiator.



Separation roller

A roller that separates the sheets of paper from each other.

Simplex reading mode

A mode for scanning only the front side of the document.

Smoothing

A process that eliminates "jaggies" from slanted lines and curves. Irregular convexities are deleted and irregular concavities filled in. This is useful in OCR applications, for example.

Storage temperature/humidity

The temperature and humidity levels necessary for proper storage of the scanner.

Temporary Error

An error that can be fixed by the operator.

Terminator

Devices with a SCSI interface can be daisy-chained. A resistor that includes terminal circuits needs to be placed at both ends of the SCSI chain when devices are daisy-chained. If a device (such as a scanner) is the last device in a chain, leaving an interface connector unused, a Terminator therefore must be attached to provide those terminal circits.

Third Party Interface

Used to install optional board provided by Fujitsu or interface board manufactured by a third party.

Threshold

A value used as a metric for judging a color as black or white. For scanning an image with gray gradation, this value must be defined. The threshold setting determines which pixels are converted to black and which will become white.

TUV

"An institution that controls products for conformity with various standars of security, usability and environmental matters. "

TWAIN (Technology Without Any Interesting Name)

A standard for API (Application Program Interface) or protocol for imaging devices (scanners, digital cameras, etc.) developed by TWAIN Working Group. In order to use devices that comply with this standard, it is necessary to install driver software based on the same standard.

Ultrasonic sensor

A type of sensor for detecting multi feeding by ultrasonic sound. Scanners detect multi feeding by recognizing differences in the amount of ultrasonic waves that penetrates the documents.

USB (Universal Serial Bus)

An abbreviation for "Universal Serial Bus". A standard for interfaces used to connect devices such as key boards, scanners, etc. Up to 127 devices can be connected through this interface. USB devices can be plugged/unplugged without turning off their power. Data transfer rates are different between the "Low speed mode" (1.5Mbps) and "High speed mode" (Max. 12Mbps).

White level follower

A function to correct the difference between white colors in unbleached paper (e.g. wood containing paper, etc.) and in scanned images.

White Reference Stripe

The white part located in the ADF that defines the lightest area in an image, causing all other areas to be adjusted accordingly.

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